

CHAPTER II

LITERATURE REVIEW

This chapter would like to discuss English learning, Artificial Intelligence, Artificial Intelligence tools in English learning, the advantages and disadvantages of Artificial Intelligence in education, EFL students' perceptions of Artificial Intelligence in English, and previous studies.

A. English Learning

1. Definition of English Learning

Many researchers have characterized learning. Learning, in the words of Brown (1994), is the process by which students interact with teachers and educational materials in a classroom setting. Tomlinson (1998) asserts that learning is a conscious process that involves memory connected to the material being studied, such as utilizing vocabulary, grammar rules, and supporting greetings. Learning a language improves one's life. Language learning can benefit from knowledge of language systems and language use that involves organizations, teachers, students, and spending that prioritizes learning experiences, self-appreciation, emotional involvement, connected learning with thought power, communicative language use, and learning resources that foster learners' creativity (Tomlinson and Masuhara, 2004).

English is a major language in the globe and is considered an international language. According to Lie (2007), English is widely considered the most important and influential language in the world. Linguists use the term competence to roughly define what we have called expertise and capacity thus far. Johnson (2008) states that competence is the knowledge and skills that are

considered communication skills involved in language usage. It's worth noting that many people today feel compelled to learn English as an international language due to the new era and globalization. Many individuals take learning English very seriously, and after discovering how vital it is, many more desire to study it as it will make it simple for them to communicate with others around the world.

2. English as A Foreign Language

Learning a foreign language is the process of acquiring a language through programming. Moller (2015) states that imitation, practice, encouragement, and habit development are the main components of language learning. Aspects of biological, cognitive, and social maturity, as well as elements of instruction within the teaching and learning process, also play a significant role in determining language acquisition. In addition, Anderson (2004) lists eight fundamental ideas about language's nature: language is a system; language is vocal (speech sound); language is made up of arbitrary symbols; each language is distinct; language is habit-based; language is a tool for communication; language is closely tied to regional culture; and language is constantly evolving. Specifically, learning English is meant to help pupils acquire these abilities so that they are.

EFL students refer to students who are learning English as a foreign language in educational settings where English is not the first language. These students may come from countries like Indonesia, Lebanon, and other non-English speaking countries. According to Patel and Jain (2008: 35), a Foreign Language is a language where the secondary environment is not observed and the people of linguistically foreign societies use such language. Moreover, Gebhard (1996: 2)

stated that by EFL, English as studied by people who live in places where English is not the first language of the people.

People study English in other places where English is the first language. The goal of EFL in the educational system is to pass English entrance exams to enter good high schools and universities. Such as, much of the teaching is directed at making students able to analyze and comprehend English, so they can pass entrance examinations, no necessary to prepare them to communicate in English.

B. Artificial Intelligence

Artificial Intelligence is the field of computer science and technology that aims to build intelligent computers capable of doing activities that would normally need human intelligence. Artificial Intelligence is the creation of computer systems that can see, reason, learn, and make decisions to duplicate or augment human cognitive capacities (Huang, 2010). According to Spector, L (2006) Artificial Intelligence is a domain of computer science that deals with the development of intelligent computer systems, which are capable of perceiving, analyzing, and reacting accordingly to the inputs. It is a well-known fact that humans are considered the most intelligent and smart species on earth. The features that have helped them to bag this title include the ability to think, apply logic, do reasoning, understand the complexity, and make decisions on their own. They can also do planning, innovation, and solve problems to a greater extent.

Kaur & Gill (2019) stated that artificial intelligence could be a computerized endeavor to attain human-level intelligence by utilizing diverse computations of machines. It may be an arrangement of progressed advances that allow humans to feel, comprehend, work, and learn from machines. It can be said that Artificial

intelligence could be a department of computer science that emphasizes the capacity to think and act like people. This requires borrowing human insights characteristics and after that consolidating them in a computer-friendly way. Human activities such as learning, arranging, making choices, and knowing dialects can be done by Artificial Intelligence. Educating and learning English moreover has ended up less demanding with the advancement of innovation and computerized stages. These presently offer the opportunity to move forward with English language skills.

Ribeiro (2020) stated that Artificial Intelligence in English Language Teaching (ELT) is the most realistic way English language teachers can use it. English is one of the common world languages which has a systematic grammatical structure. Therefore, learning English has always been substantially difficult for ESL/EFL (English as Second/Foreign Language) students (Mehrotra, 2019). Thus, the reform of English teaching and learning can be effectively promoted through artificial intelligence machine learning, intelligent search, and natural language processing (Wang, 2019). Based on the study by Ishak et al., (2022) shows that the applications of Artificial Intelligence discovered that the use of the tool can enhance English language teaching and learning. According to Dewi et al., (2020), Artificial Intelligence technology can be utilized to boost students' English learning. ChatGPT and Google Translate are examples of artificial intelligence that are often used by students in learning English.

1. ChatGPT

ChatGPT is an AI chatbot developed by an American AI company, called OpenAI. The number of ChatGPT users has remarkably increased by over one million in just a week after its launch on November 30, 2022 (Mollman, 2022).

ChatGPT is a powerful tool that has the potential to transform the way we interact with technology, enabling more natural and intuitive communication between humans and machines. It is already being used in a variety of applications, including customer service chatbots, language translation tools, and virtual assistants, and its use in education is also being explored as a way to enhance student learning and engagement (Dempere et al., 2023).

In educational settings, ChatGPT not only can assist in designing assessments, producing essays, and translating languages, but it also enables users to pose and answer a variety of questions, summarize texts, and interact with them like peers (Sok, 2023). There are several ways in which the GPT (Generative Pre-trained Transformer) language model can be used in education (Williamson et al., 2023). The first ChatGPT can be used to create chatbots and virtual language tutors that help students practice their language skills. These chatbots can simulate real-life conversations and provide students with instant feedback on their grammar, pronunciation, and vocabulary.

Then the second ChatGPT can be used to help students improve their writing skills. By analyzing a student's writing style, GPT can suggest improvements and provide feedback on grammar, punctuation, and spelling errors. The third is ChatGPT can be used to grade essays and other written assignments automatically. This can save teachers a lot of time and provide students with immediate feedback on their work. The fourth ChatGPT can be used to create personalized learning experiences for students. By analyzing a student's learning patterns and preferences, GPT can recommend specific learning resources, such as articles, videos, and textbooks, that are tailored to their needs.

2. Google Translate

Google Translate is one of the most popular machine translation tools in the world. Google Translate is one of the applications developed by Google, a website that allows users to access information from all over the world at any time and from anywhere. Currently, Google Translate can translate into more than 100 languages used in the world. In the era of globalization, students are required to read and understand many texts and documents that still use the original language from an international language, such as English. From there, students came up with the idea of translating these texts in instantaneous ways in a relatively short time. Google Translate can translate not only a word, but also a phrase, part of text, or a Web page. To translate a text, Google Translate searches different sets of documents to find the most appropriate translation pattern among human-translated texts.

Google Translate has various advantages. First, it's free. It also offers multiple languages for input and output. The app also enables speech recognition, translates entire web pages, and uploads entire text files for quick translation. Medvedev G., (2016) emphasized the advantages of Google Translate in teaching English. Google Translate allows users to access websites for free. Users just need to open the website in their browser or load the app in their widget to use the app. Photo recognition becomes a feature in the Google Translate app on learners' smartphones to save time, especially when learners are trying to understand some English text. Students simply take a picture of the word or text and then let the tool do the job. In addition, this application also allows text input through the virtual keyboard, handwriting recognition, or voice recognition.

C. Perception

Perception is one of the factors that influences behavior. Behavioral changes in a person can be known through perception. According to Irwanto, et al (1989), perception is the process of receiving stimuli in the form of objects, qualities, relationships between symptoms, and events until the stimuli are realized and understood. Through the stimulus process, the stimuli received cause individuals to have an understanding of the environment. Indrawijaya (1997) believed that perception is an individual's way of viewing an object.

Davidoff (1988) also defined perception as a process that organizes and combines our sense data to be developed in such a way that we can be aware of our surroundings, including being aware of ourselves. Not much different from the opinion above, Walgito (2004) defined perception as a process that is preceded by the process of sensing a stimulus which is then organized and interpreted by the individual, so that the individual realizes and understands what is sensed.

According to Mahmud (1990), there are two types of perception, namely positive perception, where the individual gives a positive response followed by good acceptance of the object, whereas in negative perception the individual will give a negative response and is followed by rejection of the object. Irwanto (1989) adds that individuals who give a positive perception of a stimulus object are described as liking, following, and trying to follow up or being active towards the stimulus. Individuals who have a negative perception of a stimulus object will reject it, tend to challenge it, and the individual will be passive in responding to the stimulus object.

D. Artificial Intelligence Tools in English Learning

AI-powered tools in education are seen as potentially beneficial to both students and teachers since they offer the opportunity to experience personalized, flexible, inclusive, and engaging learning. They also provide teachers and learners with the tools that allow them to respond to how it is being learned, and how the student feels rather than what is being learned. The tools help learners develop the knowledge and skills for a changing job market as well as assist teachers in creating more sophisticated and inspiring learning environments than would otherwise be possible (Luckin et al., 2016).

The use of Artificial Intelligence in English learning is needed. The informants say that the use of Artificial Intelligence has a positive impact on English language learning. That's because the fast and effective nature of Artificial Intelligence can help them with the difficulty of learning English, such as searching for words they do not know. In addition, the informants revealed that the utilization of Artificial Intelligence is more used in writing tasks. Through the help of Artificial Intelligence respondents said they can do the task much faster than manually without the help of any digital tools. From this, it can be concluded that the use of Artificial Intelligence has a positive impact on English language learning (Dewi et al., 2020). Many AI tools can be used by students, ChatGPT and Google Translate are the AI-tools that are most frequently used because they are easy to use and can be used for free.

E. The Advantages and Disadvantages of Artificial Intelligence in English Learning

The use of Artificial Intelligence in the world of education has now become commonplace, many students use it to learn and improve their understanding, similar to electricity or computers, it serves as a general-purpose technology that has

numerous applications. Its applications span language translation, image recognition, decision-making, credit scoring, etc. Based on Gultekin, (2022) there are some advantages of using Artificial Intelligence.

The first is language learning apps. Artificial Intelligence-controlled language learning applications can give customized examples, adjusting to an understudy's capability level and learning pace. The second is automated feedback. Artificial Intelligence can offer instant feedback on grammar, pronunciation, and vocabulary, helping students identify and correct mistakes efficiently. The third is speech recognition. Artificial Intelligence technologies can incorporate speech recognition, allowing students to practice and improve their pronunciation by receiving real-time feedback.

Then the fourth is customized learning paths. Artificial Intelligence algorithms can analyze a student's strengths and weaknesses in English and generate customized learning paths, focusing on areas that need improvement. The fifth is language translation assistance. Artificial Intelligence-powered translation tools can aid students in understanding English texts by providing instant translations and explanations. The sixth is engaging learning experiences. Artificial Intelligence can enhance engagement through interactive and gamified language learning platforms, making the process more enjoyable and effective.

Although there are many advantages to using Artificial Intelligence in education, there are also risks to using Artificial Intelligence that should not be ignored. The increasing reliance on Artificial Intelligence in education can lead to technology overdependence, which may have several unintended consequences.

Based on Bhbosale et al., (2020) there are disadvantages to using Artificial Intelligence:

The first is the lack of human interaction. Artificial Intelligence language learning tools may lack the nuanced human interaction necessary for developing conversational and social aspects of language proficiency. The second is an overemphasis on technology. Depending too heavily on Artificial Intelligence for language learning might neglect the importance of real-world communication, cultural nuances, and social context in language acquisition.

Then the third is the potential for errors. Artificial Intelligence systems may not always provide accurate feedback or may misinterpret the context, leading to potential errors in learning. The fourth is limited context understanding. Artificial Intelligence may struggle to fully grasp the subtleties and context of language, potentially leading to misunderstandings or inaccuracies in feedback.

F. EFL Students' Perceptions of Artificial Intelligence in English

Based on the study by Moybeka et al., (2023) the results show that the level of Artificial Intelligence used was at a high level. It can be said that in general the use of Artificial Intelligence, be it ChatGPT, Ask AI, Perplexity, OpenAI, and other technologies in learning, helps in obtaining new information and experiences in learning, understanding the material provided by the teacher, and making it easier to remember lessons. Based on Haryanto, (2019) Siri as Artificial Intelligence motivates and makes more confidence in EFL learning. Based on Ishak et al., (2022) students perceived Artificial Intelligence as beneficial in enhancing their language and gaining knowledge of enjoyment, in particular in phrases of personalized preparation and immediate comments. English writing performance of the scholars isn't best

enhancing, however also advanced their self-efficacy and self-regulated gaining knowledge of, and significantly reduced their cognitive load.

G. Previous Studies

There are some previous studies to this study the first is by Dewi et al., (2020) focused on analyzing an Artificial Intelligence platform that can be used in imparting education as well as evaluating student performance. It has several similarities with this study such as researching the use of Artificial Intelligence in the field of English language education, at the same level and also researching the same subject (students). The difference is this study concerned with investigating EFL students' perceptions of the use of Artificial Intelligence in English learning, has a larger number of subjects, namely 126 subjects, using open-ended and closed-ended questionnaires to collect the data, and only focuses on ChatGPT and Google Translate.

The second is by Idroes et al., (2023) focused on comprehensively understanding students' perspectives on using Artificial Intelligence within educational settings to gain insights about the role of Artificial Intelligence in education and investigate their perceptions regarding the advantages, challenges, and expectations associated with integrating Artificial Intelligence into the learning process. It has several similarities to this study such as researching Artificial Intelligence in the field of English language education, using the same method, and also researching the same subject (students). The difference is this study concerned with investigating EFL students' perceptions of the use of Artificial Intelligence in English learning, has a larger number of subjects, namely 126 subjects, using open-ended and closed-ended questionnaires to collect the data, and only focuses on ChatGPT and Google Translate.

The third is by Akbarani (2024) addresses the extent to use Artificial Intelligence in English language teaching. The researcher used a descriptive qualitative approach with a questionnaire as the technique of data collection. It has several similarities with this study such as researching Artificial Intelligence in the field of English language education, using the same method and instrument. The difference is this study concerned with investigating EFL students' perceptions of the use of Artificial Intelligence in English learning, has a larger number of subjects, namely 126 subjects, using open-ended and closed-ended questionnaires to collect the data, and only focuses on ChatGPT and Google Translate.