

PAPER NAME

**Article Al Himalayan journal.pdf**

AUTHOR

**mujahidah munawir**

WORD COUNT

**6805 Words**

CHARACTER COUNT

**37082 Characters**

PAGE COUNT

**9 Pages**

FILE SIZE

**614.7KB**

SUBMISSION DATE

**Apr 24, 2023 11:03 PM GMT+8**

REPORT DATE

**Apr 24, 2023 11:04 PM GMT+8**

### ● 43% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

- 19% Internet database
- 43% Publications database
- Crossref database
- Crossref Posted Content database
- 0% Submitted Works database

### ● Excluded from Similarity Report

- Bibliographic material
- Quoted material
- Cited material
- Small Matches (Less than 8 words)

Research Article

Artificial Intelligence-Based Instruction in Elt at an Indonesian Islamic Higher Education

Mujahidah<sup>1</sup>, Kisman Salija<sup>2</sup>, Muhammad Asfah Rahman<sup>3</sup>

Universitas Negeri Makassar, Jalan Andi Pangerang Pettarani, South Sulawesi, Indonesia

\*Corresponding Author

Mujahidah

Article History

Received: 20.02.2023

Accepted: 10.03.2023

Published: 16.03.2023

Citations:

Mujahidah, *et al.*, (2023); Artificial Intelligence-Based Instruction in Elt at an Indonesian Islamic Higher Education. *Hmlyan Jr Edu Lte*, 4(2) 17-25

Copyright @ 2023: This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

**Abstract:** This study focuses on the implementation of Artificial Intelligence in English language teaching. Artificial Intelligence (AI) is a tool that lecturer used to teach English specially Speaking Subject. AI is a computer machine setting that creates by human to do human work. So, this research concern to investigate the implementation of AI that used by lecture to teach the students. The method of this study is qualitative approach by using N-VIVO software with thematic analysis. The population of this research was all the English lecturer of English Department of Tarbiyah faculty IAIN Parepare, and the sample of this research is the lecturer who teach speaking subject, and it was taken by using purposive sampling technique. The result of this study shows that, speaking lecturer used three kinds of AI in teaching speaking, such as Cake App, Elsa Speak App and Duolingo App. The entire app takes turn used by lecturer in teaching speaking. In implementing, the lecturer prepares the teaching setting, like RPS/RPP, Materials, Learning Objectives (CPL, CPMK), and Evaluation Tools before teaching. In applying AI in the class lecturer ask the students to download the app first and then used AI in learning process that connect about the material that arrange by lecturer. The last step is, lecturer evaluate the speaking class and used AI as a tool to measure the students' pronunciation skill, vocabulary mastery, students' fluency and accuracy in speaking.

**Keywords:** Artificial Intelligence, Instruction, ELT, Apps, Speaking.

A. RESEARCH BACKGROUND

Most of scientific forums conclude that "technology" is just a tool or facility that connects the content to the teacher/lecturer in the teaching and learning process. However, the definition of technology as a tool has shifted in recent years. Technology has improved learning tools in the last three years. Since the COVID-19 Pandemic in Indonesia, technology has become an important part in learning programs, including English. Using technology is increase significantly in education. Besides being entertaining to use, it makes lecturing be simple. After all, several sorts of programs are unquestionably helpful in the classroom. There are hundreds of platforms that are regularly used in education nowadays.

Technology plays a big role in maximizing the education, and it needs a suitable internet network required, including Artificial Intelligence (AI). AI is one kinds of technology that create by human to do human work. AI slowly but steadily made several achievements, especially in education, after the fast expansion of the Internet during the previous three decades. Artificial Intelligence has influenced autonomous translation and language processing in linguistics. In the current era, everyone writes and using computer practically, and it will assist authors with

spelling and grammar, even if they are unaware of it. Many students have employed Artificial Intelligence to help them to write their English papers or task. For examples when the teacher gives some tasks, the students take it easy to do it, because they used technology to do it, like translation tolls or grammar checker.

Artificial Intelligence (AI) is a branch of computer science that examines how to construct machines (computers) that can do tasks humans, even better than humans. AI is the study and modeling of human cognitive processes and the creation of robots that mimic human behavior. Intelligence is a combination of knowledge and experience, reasoning (making judgments and taking action), and morals. AI is a technology that, like people, requires data to use as knowledge. AI requires experience and data to improve its intelligence. Learning, reasoning, and self-correction are essential aspects of the AI process. (Jati *et al.*, 2021)

English department of Tarbiyah Faculty at IAIN Parepare has implemented AI in the teaching-learning process, specially at speaking class. The lecture has a consideration to apply AI in teaching speaking based on the students' need to learn. The point of view of lecturer

who teaches in an English Department is that the students need a model (native speaker) to show the student and practice English directly. So, in a few times ago the lecturer thought that to make the students have a good pronunciation they have to study by native speaker directly. In fact, it is very difficult to find out the native speaker from abroad. The institution also ever looking for the native speaker who live in Parepare but no one for it. So, it is too difficult to find out the native speaker who teaches English on campus. An addition, at pandemic time in two years later, it is forbidden for native speaker come to this country.

In 2018, the English Department of Tarbiyah Faculty conduct a workshop about English Learning Media in teaching English. This department present the speaker from Australia, she is a volunteer teacher. She comes to Indonesia for helping the people to learn English. Her name is Sarah Drake. In presenting the materials, she was introducing kinds of AI in teaching English. Most of participant was interested to know well the application that related to teaching English. So, the participant appreciates the material and tries to apply in teaching all subjects in English. At that time English lecturer and student recognize AI in teaching-learning English.

In 2019, the English department of Tarbiyah Faculty conduct designing curriculum to fulfill the vision and mission of institution. In this case, the vision and mission of the institution was a leading institution that integrated culture and Islam based on information technology. To fulfill this vision and mission, the English department try to redesign curriculum and put technology as basic of teaching and learning process in the classroom. Besides that, in the English department curriculum put one subject that support technology in teaching English such as ICT in ELT. This subject the students thought how to teach and involve technology as a tool in teaching English. So as a candidate of teacher must know the technology in teaching even the students ask to make a video of teaching by using technology. So that not only the obligation of lecture to recognize a technology in teaching but also the students have mastery a technology, like AI.

In 2021 at pandemic time, the English department back to hold an agenda to make the teaching-learning process will be effective even though in pandemic time. English department uses technology in teaching massively. So, the English department conduct AI Workshop to mastery technology, the feature if AI, the menu or the way to use AI in the English classroom. In fact, after joining this workshop, most of lecture used AI in teaching English, especially speaking and listening subject. In speaking subject there are three levels. The first is informative speaking, intensive speaking and the last interactive speaking. The lecture used AI in teaching speaking because it is very easy to operate and students need to speak with native speaker

even thought by computer setting. The lecturer tries to practice AI in the classroom and students ask to follow the lecturing. So, AI was implemented in the teaching-learning process, especially in speaking subject.

All the case above indicates that, English department of Tarbiyah Faculty are ready to implement in teaching learning process, but the most important here is how is the implementation of AI in the class. So, the researcher tries to investigate about **Artificial Intelligence-Based Instruction in ELT at an Indonesian Islamic Higher Education**.

## A. RESEARCH PROBLEMS

Based on the background above the researcher formulates the research questions namely how is the implementation (Input, Process, and Output) of AI-based Instruction in ELT?

## B. RESEARCH OBJECTIVES

Based on the research questions presented above, the objectives of this research is to Explore the implementation of AI-based Instruction in ELT. In implementation consist of three phase such as the lecture pre-teaching (input) the applying AI in teaching (Process), and teaching evaluation (Output).

## C. RESEARCH SIGNIFICANCE

The significant of this research is expected to find out the meaningful information for all the students and lecturer who are interested to study about English. The researcher also hopes that the result can give information and knowledge about the important and the function of Artificial Intelligence in daily teaching-learning process. So, the student and lecturer can enjoy the material and understand quick and easy. Another purpose of this research is to get meaningful information about the implementation of AI in ELT class. Are the students interested, enjoy or useful of AI to learn English or not. It is an important information for all lecturer to make teaching learning process be meaningful.

## D. LITERATURE REVIEW

### 1. Artificial Intelligence in English Language Teaching.

In the 21st century, AI has become an important area of research in all fields: Engineering, science, education, medicine, business, accounting, finance, marketing, economics, stock market, and law, among other. The range of AI has grown enormously since the intelligence of machines with machine learning capabilities has created profound impacts on business, governments, and society (Cioffi *et al.*, 2020).

Media is the extension of human body, and Artificial Intelligence (AI) is also the extension of human intelligence. As one of the most developed technologies at this stage, AI has also made many

breakthroughs in the field of education. Simply put, AI simulates human intelligence science through computer. The continuous improvement of information process makes AI penetrate into all aspects of public life. Education is the driving force and cornerstone of social development. English language is one of the universal world languages nowadays. Therefore, through AI machine learning, intelligent search and natural language processing, can effectively promote the reform of English teaching and learning. Improve and improve the ability of Chinese people to communicate in English, at the same time, promote the improvement of the quality of English classroom teaching. Therefore, the emergence of Artificial Intelligence is not only an effective way of English teaching and learning practice, but also an important manifestation of science and technology to promote social change. (R. Wang, 2019).

AI refers to the computer application, in imitation of human intelligent behavior and the process of thought, forming a comprehensive discipline (Zhu, 2017). AI is now commonly defined as a scientific discipline as the activity that creates machines that can function appropriately and with foresight in their environment (European Commission. Joint Research Centre, 2018).

Machine Learning and Intelligent Search Artificial Intelligence has the characteristics of machine learning and intelligent search. Machine learning is the summary and reorganization of the knowledge structure of the data in the system and the analysis results formed by the system. As a very important research field in Artificial Intelligence (AI), machine learning can effectively analyze and deeply mine the data of teachers and students in the application of education industry, and provide more development possibilities for future teaching and learning. For example, machine learning can analyze the data of students' learning situation and achievements in the past year, and form corresponding written reports. Teachers and students can analyze the problems and causes of learning based on these valuable data and information, and then put forward the desired learning programs and promotion measures. The general machine learning system includes four elements: system environment, learning, knowledge base and execution of commands. Simply put, an effective learning process can be formed in the process of system operation, and the continuous improvement and expansion of knowledge base can promote the self-judgment and self-learning ability of the system to continuously enhance. (R. Wang, 2019).

Here The Relationship between Artificial Intelligence as Technology and English Teaching as follows, the English teaching process is relatively complex, contain a variety of uncertainties, including Artificial Intelligence (AI) with simulation of human thinking mode and thinking to solve the reasoning process of representation, for its most prominent feature of the complexity in the process of English teaching

needs with the help of Artificial Intelligence (AI), its unique way of solving to play, and provide every student with the right help, for its dynamic teaching strategies, Artificial Intelligence as a technology can give full play to its advantages in the field of language learning and make up for many shortcomings in English teaching process, which is not only conducive to adapting to English curriculum standards, but also can realize the reform of English classroom teaching mode and the improvement of students' learning style, English teaching system of Artificial Intelligence (AI) can be used as a breakthrough point to promote the construction of a modern information technology to the change of English teaching, improve teachers' English teaching quality and students' initiative of learning English, it is the intelligent method is adopted to improve the commanding heights of the computer-aided language teaching, the process of social development, teaching plays a cornerstone role. Therefore, the application field of Artificial Intelligence (AI) must be expanded in education and teaching first. Language is the most representative intelligence. Natural language processing, speech recognition and machine translation in Artificial Intelligence research are closely related to language learning. (li, 2020).

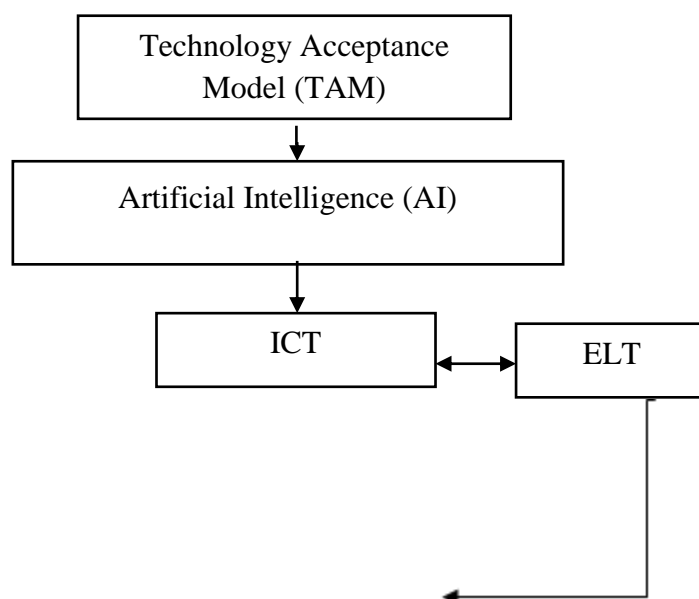
The Implementation of Artificial Intelligence (AI) in English Teaching With the change of educational technology, the teaching strategy also changes, but no matter how the technology changes, the cultivation of students' core literacy will not change. in foreign language teaching, listening, speaking, reading, writing, and other foreign language skills training should always be given priority to. With the support of AI, classroom teaching has changed a lot. for example, flipped classroom, micro class teaching, online teaching and intelligent classroom are all built on the basis of this mode, which are all teaching products in the era of Artificial Intelligence (AI). in this way, the use of Artificial Intelligence (AI) system can not only improve the automation and depth of students in the learning process, but also improve the labor intensity of teachers in the process of teaching students (Yanhua, 2020).

## **2. The Importance and the Roles of Artificial Intelligence in English Teaching.**

AI plays an essential role in monitoring learner's mental actions, such as self-regulation, control, and description, to create intelligent teacher programs. This determines the information for the learner which is most adequate. AI helps to turn the practice of understanding and training into deep thinking and methods of learning. The development of artificial educational intelligence contributes to technological creativity and social intelligence. Developing smart educational systems, such as on the iPhone virtual assistants such as Siri, and feedback from Facebook friends, Google cars are important examples of how life can change through AI (Sun *et al.*, 2021).

### 3. Conceptual Framework

Based on the theory above the researcher formulates the conceptual framework as follows:



Based on Framework above Artificial Intelligence is the work of technology that is one part of computer science that studies how to make machines (computers) that can do work and what humans do and can even do better than what humans do, and also it implemented in Instruction, especially English language teaching in Indonesia Islamic Institute. So, in this research, the researcher wants to know how the implementation of Artificial Intelligence based instruction in ELT.

### E. RESEARCH METHOD

#### a. Research Design

In this study focus on the implementation of AI-Based Instruction in ELT. The implementation here depends on three main point such as the pre-teaching, process and output of teaching and it is presented in qualitative approach.

#### b. Research Population and Sampling

This study is conducted in English Education Department of Tarbiyah Faculty IAIN Parepare. The population of this study was all the lecturer of English Department of Tarbiyah Faculty. The sample of this research were 2 lecturers selected from the population of this research. This research used purposive sampling technique. The purposive sampling technique is a type of sample consisting of self-selected participant. In this study, the lecturers' participated in teaching speaking by using AI.

#### c. Research Instruments.

This researcher used 2 kinds of instruments namely observation checklist and interview guide. To measure the way of lecture to implement AI in the classroom. It beginning from the readiness of lecture to prepare the syllabus, the data was taken by using observation checklist. After doing observation, the researcher conducted a semi-structured interview. The researcher

used interview protocol to get information of students' attitude related to AI-based instruction adopted by lecturer in the class. The researcher also interviewed the lecturer to get additional information about the implementing of AI-based instruction in ELT.

#### d. Data Collection Procedures

The data in this research were collected by using observation and Interview the informant. The first step of researcher conducted this research was observe and interview to the participant of this research. The purpose of observing the class is to know the teaching learning process by using AI. Next, the researcher employed the semi-structured interview using audio recorder with all participant. The last step is conducted interview contains the objectives of teacher to teach by using AI, the integration of syllabus, the lecturer experience of teaching, and lecturer assessment or evaluation tools. This interview was recorded by the researcher than make transcript of conversation happen. The researcher conducts face-to-face interviews with participants, telephone interviews. These interviews involve unstructured and generally open-ended questions that are few in number and intended to elicit views and opinions from the participants. (Cresswell, 2018)

#### e. Technique of Data Analysis

Another research questions about the implementation of AI in ELT will be taken the data from the interview and it was analysed by using N-VIVO Software. Next, Siti Uzaerah (2013) details the thematic interview data analysis process as follows: i) Transcript (early stage), ii) removing what is important (reduction), iii) removing what we want according to the theme, purpose or literature review, iv) matching data to see similarities and differences in results, v)



display data. The analysis was carried out with the help of N-VIVO software.

## F. RESEARCH RESULT

### 1. FINDINGS

#### a. The Implementation of AI-Based Instruction in ELT (Pre-teaching)

Based on data observation that researcher conduct, it was found that, at the pre-teaching, the lecturer prepares the material that related with syllabus, and arrange the materials that comes from the RPS (Lesson Plan). In the lesson plan the lecturer stated the objectives of study. So, the material is related with the lesson plan. In teaching-learning process, the lecturer gives some instructions and motivation to begin the study. In IAIN Parepare, called learning contract. This learning contract contain of the rule of study, time, introducing of materials, learning objectives and including the media that lecturer used to teach. After that the lecturer give motivation to students and ask the students to know well the media that used will be. They introduce the AI as a tool to study like Cake app, Duolingo, Elsa Speak, Kuki, etc. The lecturer introduces the important of knowing AI in study. The next meeting the lecturer ask the student to use AI and the next meeting the lecturer ask the students to mention what they did last week. The lecturer gives some instruction to open the Cake application and go to the theme will be discussed.

#### b. Applying the AI in Teaching (Process of Teaching)

After elaborating on the data obtained in this study, it can be seen that lecturers mostly used 3 kinds of AI that applied in teaching speaking at English Department of IAIN Parepare.

##### 1). Duolingo

Duolingo is the fun, free apps for learning 35+ languages through quick, bite-sized lessons. The ways of teacher implementing Duolingo in speaking class after doing investigation was found that, the features of Duolingo apps indicated that teaching learning process based on the user needs. Sometimes lecturer ask the students to repeat the sentence to recheck the pronunciation, and another time lecturer ask the students to compose the sentence to speak or listen and write the sentence. There is a feature to listen to the way a native speaker speaks and the pronunciation of the AI voice/native speaker. In another time the lecturer holds the screen and speaks by reading sentences. Then the apps will show the result, true or false. The application displays Indonesian sentences and the user tries to translate the sentences using the available random words. Besides that, by Duolingo, students can practice Listen then write. Next occasion, the students listen to the AI voice by touching the sound icon available on the screen, then type what he heard. When the sound is too fast, they can touch the turtle icon to hear the slow version. Another time Duolingo can listen then translate and compose the sentence than, students translate the

sentences they hear. Students listen to the voice in English and translate it into Indonesian by selecting the available words. Encouragement icon after learning session.

Duolingo apps is great for learning English especially for beginners. Based the researcher investigation, it was found that there are many features that encourage enthusiasm for learning, for example there is an attractive avatar that appreciates student achievement. These things can increase student learning motivation. There will be a daily notification if the user has not done workout. There is a feature of Duolingo which is the user repeat the sentence. But this AI is not very sensitive. Sometimes the pronunciation produces by user is wrong, but the application is still acceptable.

##### 2). CAKE

As stated by the contributor of this research that Cake apps not only focused on learn how to speak but also how to pronounce sentences. The sentences that have studied will be repeated, so the more understand how to use sentence in the conversation. After watching the video, lecturer use a quiz about the way to pronounce sentence or word. This quiz will relate with conversations that have been seen in the videos. Cake apps also prepares feature special tap to speak. With this application, lecturer could repeat because besides given the assessment it also gives feedback regarding where location students' mistakes do. There are many free classes that students can access. The classes are very informative, very useful for English learners and the classes are conducted by native speakers. Class topics vary from everyday English vocabulary activities to English for advanced students.

These are examples of English idioms that students can choose. students can listen to the way native speakers use idioms. Students can also imitate them in conversation. The way of students imitate in conversation is also good because they are not talking alone. There will be someone who speaks first and then we replay him. The students can see the appendix sentences that show the correct way to respond in a conversation. The sentence that must be used is already given, lecturer only need to follow or read the sentence and imitate the speaker's way together with students. Next, students can choose learning videos according to their interests or material of teacher has prepared. There are many topics to choose like animation, American TV series, songs, daily activities, business, etc.

##### 3. ELSA Speak

This app is used in practice English through fun games on pronunciation, word stress, rhythm, and intonation. This app compares the user's voice with native speakers and provides immediate feedback and instruction in correcting itself. The advanced feedback feature and the corrective measure videos that follow after the speaking enables the user to work the

challenging sounds and improve his/her accent and speaking skills. The used of this application besides for study we can see the progress our result of study. In this application is rated no only pronunciation though application Elsa but also very popular app with detection the pronunciation with level accuracy up to 95 percent. So, Elsa Apps also detects about intonation is already Correct or no. Then rhythm from pronunciation is also detected in the application Elsa. This application is very useful for practice children at school about student in speaking. The Elsa Speak app is one of the best English learning apps available for English learners who want to focus on speaking like a native speaker.

By this app, students learn specific pronunciation skills such as ending sounds and schwa:/ ə/. The lesson is separated into seven days daily lesson. We can only learn one part a day which is sign as day one until day seven. In one day, students can learn several different lessons.

In this section, students listen to how native speakers pronounce the word. Phonetic symbols are displayed. students can also imitate the speaker to see how much they talk like a native speaker. When they make mistakes, they can repeat until we sound like native speakers. The teacher explains the topic and gives examples about the lesson. Watching the videos is not only good for improving our pronunciation skills, but also for practicing our listening skills. students listen to the voice of a native speaker to pronounce the word. The text is actually displayed as a proper stress word. When they can't imitate perfectly, they can repeat until they get very good results. They repeat the pronunciation as long as they want and take the exercise of this app looks like playing game.

This app is practice in a game or looks like a kind of gamification. This is an example of exercise; students listen to the word and they choose the correct written form of the word. This app also is great for having advanced pronunciation. The lecturer asks students to practice pronunciation like a native speaker. But, before starting the lesson, there will be an assessment test to test students' pronunciation level. Then the application will provide training options that suit students' needs, and teacher ask the students to choose the best way for students. This app is useful but the disadvantages of the application is a paid app. There are free areas to study, but to get the best progress is in paid form.

### **c. TEACHING Evaluation (Output of Teaching)**

The data by using interview show that, teachers assess the students' speaking skill by using AI apps. The application used are ELSA Speak and Cake App in pre-test or post-test form. They prefer the two apps because those provide features to measure students' progress in speaking skill. In ELSA Speak is equipped with a program to measure how fluent students speak like native speaker. When students have good

pronunciation and intonation, the score will approach 90% above. It means that, they speak like native. But when the students do not achieve a good score, there will appear aspects they need to fix up and learn more to get better pronunciation, intonation and other speaking skill aspects.

To knowing the establishing of the standard of students' skill (Post-Test), teachers provide varied learning media and exercises to improve the students' speaking skill, teacher use AI. In teaching process, teachers explain to students the benefits, positive effects and reasons of why they should use AI in learning the language. AI can help students to cover their weakness such as feeling embarrassed, less confident and many others. By reducing the students' lack it will help them to maximize ability in learning language.

The elements of speaking assessment are stress, fluency, grammar, accuracy, pronunciation, vocabulary, besides the confident and comfortable in performing the language also take part. By using AI, it will detect the students' word phonetic symbols and native recording sounds. This help lecturer detected the students' language production. In listening also attach, the authentic voice will aware students when they mispronounce something in the learning process. Using AI brings positive improvement in speaking skill aspects such as pronunciation, intonation, vocabulary and fluency in speaking skill and it will be covered in the last semester.

## **B. DISCUSSIONS**

Implementing AI in learning certainly begins with preparation as an RPP or syllabus. This is important to measure the extent of learning success. However, the syllabus also contains learning objectives, learning strategies and even includes learning evaluation. The teaching material, Learning Media and procedures of teaching are integrated in lecturer design of syllabus. As stated by lecture that, AI as a tool of teaching speaking. When the researcher made observations, it was found that, the preparation stage, the lecturer prepared a lesson plan by integrating AI into the learning material. The lecturer designed the materials and add AI as media effectively in teaching. In the curriculum, learning objectives and learning outcomes have been set as well as learning evaluation. Likewise, the learning scenario is well structured so that the learning objectives are carried out according to the learning plan. In addition, the material prepared is always under the needs of the curriculum and the needs of students. This is reinforced by the results of interviews that have been conducted on the date May 23, 2022, between lecturers and students. This finding supported that education is a big data may be used to keep track of students' primary objectives, plans and progress, among other thing. (D. Wang. 2021).

After interviewing with students and lecturers, data was got that the student's interest in using AI is high because AI can be used anywhere and anytime because it can only need cellular telephones. So, when they want to learn, it is enough to open a mobile phone. They can already learn, for example, speak with someone who is a native English speaker. About the lecture and students' interview about implementing AI in teaching learning to speaking, it was found that, by using AI in learning speaking, it will be interested, because the feature of AI can stimulate learner to use, the picture of this application makes students to more interested because full color and easy to use. Most of students use this apps and they are feel not learning but actually they are learning. They enjoy in learning speaking but they do not aware that they are study actually. It was relevant with R.Wang (2019) statement that, AI is affective learning process and it can be formed in the process of system operation and continuous enhancement because student can self-learning and this machine learning includes environment, knowledge base and execution of commands were integrated each other.

Implementing AI in learning can help the students and lecturers. For examples AI can change the false grammar be true automatically. It means that, we can know the correct grammar. Another time we can get a new vocabulary, so we can improve the students' vocabulary. There is a respondent say that when we study by using AI some time, we do not aware that we are study. Looks like we are playing game by phone. So, the student is easy to study. This study indicated that, with AI student can interact via a man-machine interface, can correct the mistaken, make conversation in real time and by AI will increase the students' problem solving and ability in English learning are increase (R.Wang. 2019)

On another occasion, when interviews with lecturers, it can be interpreted data that IAIN Parepare lecturers, especially lecturers of the English Language Education study program, use Artificial intelligence in speaking learning. The most commonly used types of AI are CAKE, Duolingo and Elsa Speak. IAIN Parepare lecturers are very familiar with these three applications. Now the application is used in every teaching English, especially speaking.

The reasons of lecturers use these three applications vary, including being easy to use, for example Elsa Speak. ELSA speak (*English Learning Speech Assistant*) is application for study language English that applies intelligence creation and introducing the sound. ELSA Pro is method fastest for increase pronunciation language English, complete with access full to lesson plan.

Overall, using AI in learning in practical terms is as an exercise for its users. There are many forms of

exercises that can be done including training one's pronunciation, training vocabulary mastery and training one's confidence in speaking. Based on previous findings that lecturers use Artificial Intelligence in each meeting lasting about 30 to 50 minutes per 1 application. So not all the time spent in every meeting to used AI. Part of the time is used by teachers to assess their students' proficiency. Because this AI is also used as a stimulus for teachers to provoke students to want to talk. In addition, lecturers usually monitor students' speaking proficiency by telling students to say words or answer questions in the application. The point is that this application is used to train students' skills. It is supported by (Mukhallafi, 2020).

The use of AI evaluation of learning outcomes, it was found that ELSA Speak can be used to assess student pronunciation. In the final test, students are asked to open the final test application that is already in the application. Before the final exam, they must complete the seven materials and evaluations that have been provided. The final test cannot be opened before the seven learning materials are completed. Each learning material can only be accessed after 24 hours after the last material opened. After filling/answering the questions given, a score will appear to determine the student's test results in terms of fluency and pronunciation of the speaking test. It means that the use of AI in assessing student learning outcomes can also be done by involving technology.

The evaluation process used is divided into 2, namely pre-test and post-test. The pre-test was conducted at the second meeting in the current semester. The tests given are as using AI to see students' initial abilities and prior knowledge before starting the learning process. In the AI applications used (CAKE, Duolingo, Elsa Speak) pre-test is available for all users.

In the pre-test, students are asked to take a test that has been provided by the application. After they install and log in, the first thing that pops up in the app is the pre-rest. Students must answer the pre-test. After that, a score will appear that shows the level of student ability before starting learning. Next about Post-test as end-of-semester test given to students after using AI in the learning process. The test given is as a test or quiz that is already available in the AI application that has been used for one semester. The technology reads less information as the user's proficiency grows. This program also assessed and offered grammar, pronunciation, and comprehension ratings, as well as the appropriate forms. For example, if a learner mispronounces a word, the learning tool may detect it quickly and assist in correcting it (Kuning, 2019).



## G. Conclusion and Suggestions

### 1. CONCLUSION

After paying attention the result of research above, it can be concluded that, the implementation of AI in teaching speaking consist of three stages. The first about the lecturer preparation before teaching. After observing of the lecturer prepare well before teaching and put AI as a media in teaching speaking even use AI as a tool to evaluate the students' speaking skill.

The second stage of the implementation of AI in speaking class, it was found that, lecturer apply in teaching speaking by using AI. Kinds of AI that was implemented by lecturer are Cake, Duolingo and Elsa Speak. Lecture is interested in using this apps because the students enjoy the class and make the student be active in learning, not only in group side but also in individual side. The last stage that, lecturer used AI as tool to evaluate the result of teaching learning process. They some time AI because in AI consist of speaking aspect assessment such as speaking fluency, accuracy, pronunciation and vocabulary.

### 2. Suggestion

This research suggests to all reader or next researcher suggest to develop this researcher by knowing the effectiveness of AI-Based Instruction in ELT. Theoretically, this research is expected to increase the knowledge about teaching speaking by using AI, in practically this research also could use as one of literature to guide the next researcher who are interested to investigate the application of AI-based Instruction in ELT.

## REFERENCES

1. Ayu Mira Witriyanti Wida, P., Keri Yasa, N. N., & Gde Sukaatmaja, I. P. (2016). APLIKASI MODEL TAM (TECHNOLOGY ACCEPTANCE MODEL) PADA PERILAKU PENGGUNA INSTAGRAM. *Jurnal Ilmu Manajemen Mahasaraswati*.  
<https://www.neliti.com/publications/101948/aplikasi-model-tam-technology-acceptance-model-pada-perilaku-pengguna-instagram>
2. Bin, Y., & Mandal, D. (2019). *English teaching practice based on artificial intelligence technology*. 11.
3. Cioffi, R., Travaglioni, M., Piscitelli, G., Petrillo, A., & De Felice, F. (2020). Artificial Intelligence and Machine Learning Applications in Smart Production: Progress, Trends, and Directions. *Sustainability*, 12(2), 492.  
<https://doi.org/10.3390/su12020492>
4. Cresswell, John W (2019), *Research Design, Qualitative, Quantitative and Mixed Method*, SAGE Publication
5. Das, S., Dey, A., Pal, A., & Roy, N. (2015). Applications of Artificial Intelligence in Machine Learning: Review and Prospect. *International Journal of Computer Applications*, 115(9), 31–41.  
<https://doi.org/10.5120/20182-2402>
6. Dewi, H. K., Rahim, N. A., Putri, R. E., Wardani, T. I., Rumambo, M. G., & Pandin, M. G. R. (2021). *THE USE OF AI (ARTIFICIAL INTELLIGENCE) IN ENGLISH LEARNING AMONG UNIVERSITY STUDENT: CASE STUDY IN ENGLISH DEPARTMENT, UNIVERSITAS AIRLANGGA*. 10.
7. European Commission. Joint Research Centre. (2018). *The impact of Artificial Intelligence on learning, teaching, and education*. Publications Office. <https://data.europa.eu/doi/10.2760/12297>
8. Haswani, F. (2014). The Role of Technology in Efl Classroom. *IJEE (Indonesian Journal of English Education)*, 1(2), 107–118.  
<https://doi.org/10.15408/ijee.v1i2.1303>
9. Hidayati, T. (2016). INTEGRATING ICT IN ENGLISH LANGUAGE TEACHING AND LEARNING IN INDONESIA. *JEELS (Journal of English Education and Linguistics Studies)*, 3(1).  
<https://doi.org/10.30762/jeels.v3i1.173>
10. Hwang, G.-J., Xie, H., Wah, B. W., & Gašević, D. (2020). Vision, challenges, roles and research issues of Artificial Intelligence in Education. *Computers and Education: Artificial Intelligence*, 1, 100001.  
<https://doi.org/10.1016/j.caeai.2020.100001>
11. Jati, G. (2021). *Artificial Intelligence in ELT [Presentation]*. <https://bit.ly/jati-iainparepare>
12. Jati, G., Dewi, F., Mali, Y. C. G., Santosa, M. H., Anjarani, S., & Luthfiyyah, R. (2021). *Teknologi dan Pembelajaran Bahasa Inggris*. 178.
13. Kuning, D. S. (2019). TECHNOLOGY IN TEACHING SPEAKING SKILL. *Journal of English Education, Literature and Linguistics*, 2(1), 50–59.  
<https://doi.org/10.31540/jeell.v2i1.243>
14. li, xue. (2020). The Application of Artificial Intelligence Technology in College English Blended Teaching. *2020 International Conference on Educational Science (ICES2020)*. 2020 International Conference on Educational Science.  
<https://doi.org/10.38007/Proceedings.0000342>
15. Siegfried Engelmann and Douglas Carnine. (1982). *THEORY OF INSTRUCTION: PRINCIPLES AND APPLICATIONS*. Irvington Publishers.
16. Sun, Z., Anbarasan, M., & Praveen Kumar, D. (2021). Design of online intelligent English teaching platform based on artificial intelligence techniques. *Computational Intelligence*, 37(3), 1166–1180. <https://doi.org/10.1111/coin.12351>
17. Suryanto, S. (2020). Pengembangan Model Pembelajaran Bahasa Inggris. *Prosiding Seminar Nasional Program Pengabdian Masyarakat*, 10.
18. Wang, D. (2021). Changes and Challenges: A Study on the Application of Artificial Intelligence Technology in College English Teaching. *2021 4th International Conference on Information Systems*

- and Computer Aided Education*, 1361–1365.  
<https://doi.org/10.1145/3482632.3483151>
19. Wang, R. (2019). Research on Artificial Intelligence Promoting English Learning Change. *Proceedings of the 3rd International Conference on Economics and Management, Education, Humanities and Social Sciences (EMEHSS 2019)*. Proceedings of the 3rd International Conference on Economics and Management, Education, Humanities and Social Sciences (EMEHSS 2019), Suzhou City, China.  
<https://doi.org/10.2991/emehss-19.2019.79>
20. Yanhua, Z. (2020). The Application of Artificial Intelligence in Foreign Language Teaching. *2020 International Conference on Artificial Intelligence and Education (ICAIE)*, 40–42.  
<https://doi.org/10.1109/ICAIE50891.2020.00017>
21. Zhu, D. (2017). Analysis of the Application of Artificial Intelligence in College English Teaching. *Proceedings of the 2017 2nd International Conference on Control, Automation and Artificial Intelligence (CAAI 2017)*. 2017 2nd International Conference on Control, Automation and Artificial Intelligence (CAAI 2017), Sanya, China.  
<https://doi.org/10.2991/caai-17.2017.52>

## ● 43% Overall Similarity

Top sources found in the following databases:

- 19% Internet database
- 43% Publications database
- Crossref database
- Crossref Posted Content database
- 0% Submitted Works database

---

### TOP SOURCES

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

- 1** I Gede Arya Pering Arimbawa, Anwar Ramli, Muhammad Azis. "The Eff... 22%  
Crossref

---

- 2** Galina N. Filimonova, Olga V. Diuriagina, Nikolai I. Antonov, Maxim V. S... 20%  
Crossref