

T.C.
ISTANBUL AYDIN UNIVERSITY
INSTITUTE OF GRADUATE STUDIES



**PERCEPTION OF ENGLISH LANGUAGE LEARNERS AND TEACHERS
TOWARDS THE USE OF ARTIFICIAL INTELLIGENCE IN THE
LANGUAGE CLASSROOM**

MASTER THESIS

Gizem GÜCÜK

Department of Foreign Languages Education
English Language Education Program

AUGUST, 2022

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(Y2012.021020)

Department of Foreign Languages Education
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AUGUST, 2022

ONAY FORMU

DECLARATION

I hereby declare with respect that the study “Perception of English language learners and teachers towards the use of Artificial Intelligence in the language classroom.”, which I submitted as a Master thesis, is written without any assistance in violation of scientific ethics and traditions in all the processes from the project phase to the conclusion of the thesis and that the works I have benefited are from those shown in the Bibliography. (.../.../2022)

Gizem GÜCÜK

FOREWORD

I hereby would like to give the deepest gratitude to my Dear supervisor Prof. Dr. Veysel KILIÇ, who helped me with my thesis and was very supportive during my thesis period. I could not move forward without his valuable feedback. I also would like to thank very much to Prof. Dr. Türkay BULUT and my teachers who have been very helpful to me during the first period of my MA. I would like to thank Dear Mukhallafi to give me permission to use his questionnaire to move forward with my study. I would like to thank İstanbul Aydın University, Bahçeşehir University, and Okan University to help me finish my thesis. From their lecturers to students, these universities were more than helpful to me to speed up and ease the process.

I gladly and proudly wish to thank my parents, my mother, my father, and my sister who were quite supportive and patient with me during my MA journey. I would like to thank Mochi for the emotional support whenever I felt down or stuck at home when I was writing my thesis. I would like to thank Burak IRMAK for giving me the idea of starting my MA and for being supportive of every second of my MA. I would also thank Betül Uslu for listening to every step I had done so far without knowing about it with patience. I would also thank all of the teachers who participated in my research in the dialog part.

August 2022

Gizem GÜCÜK

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ABSTRACT

Artificial intelligence (AI) machines can think at an almost human level, solve problems, remember, conclude, etc. It's all about being able to make movements. Contrary to popular belief, artificial intelligence did not bring as bad or apocalyptic results as in the movies, and since the moment it entered our lives, it has helped us to get results faster and with minimum error in many areas. AI-based software can contain life-saving applications, even in the simplest used phones, smart home systems, and in-car gadgets today. Artificial intelligence (AI) is developing rapidly in the field of education, as in many other fields. Although these developments have gained momentum due to the Covid epidemic, they have become an important part of our lives with the transition to online or hybrid education. Many applications and platforms used in education have saved time in education and training, both in preparing materials, homework controls, exam reading, and grading. The perception of students and educators based on artificial intelligence (AI) of such tools, websites, or applications used in this research was analyzed. A survey was given to university students including questions such as how much they know about artificial intelligence, how effective it is in the areas where artificial intelligence is used, the difficulties they experience, how much it needs to be developed, and the results. Questions such as how effective the use of based applications or platforms is, what needs to be developed, and how much is needed for English teaching in the future were asked. In this study, about 100 university students in the preparatory class were surveyed and interviews were conducted with ten lecturers.

Keywords: Artificial Intelligence, English Language Teaching, Language Teaching, Perception of AI, Perceptions of English Language Learners, Perceptions of English Language Teachers, Language Learning, English Language Learning

İNGİLİZCE ÖĞRENERLERİN VE ÖĞRETMENLERİN DİL SINIFLARINDA YAPAY ZEKA KULLANIMINA YÖNELİK ALGISI

ÖZET

Yapay zeka (AI) makinaların neredeyse insan seviyesinde düşünebilme, problem çözebilme, hatırlayabilme, sonuçlandırabilme, vb. hareketleri yapabilmesi bütünüdür. Sanılanın askine yapay zeka, filmlerdeki kadar kötü veya kıyametvari sonuçlar getirmediği gibi hayatımıza girdiği andan beri birçok alanda daha hızlı ve minimum hata ile sonuçlar almamıza yardımcı olmuştur. Günümüzde en basit kullanılan telefon, akıllı ev sistemleri, araba içi araç gereçlerde bile AI-bazlı yazılımlar hayat kurtarıcı uygulamalar içerebilmektedir. Yapay zeka (AI), birçok alanda olduğu gibi, eğitim alanında da hızla gelişmektedir. Covid salgını nedeni ile bu gelişimler hız kazanmakla beraber, online veya hibrit eğitime geçişle hayatımızın önemli bir parçası olmuştur. Eğitimde kullanılan birçok uygulamalar ve platformlar eğitim ve öğretimde gerek material hazırlamada gerekse ödev kontrollerinde, sınav okuma ve puanlandırma gibi durumlarda özellikle zaman kazandırmıştır. Bu araştırmada da kullanılan bu tür araç-gereç, website veya uygulamaların yapay zeka (AI) bazında öğrenci ve eğitimcilerin algısı analiz edilmiştir. Üniversite hazırlık öğrencilerine ve yapay zeka hakkında ne kadar bilgisi oldukları, yapay zekanın kullanıldığı alanlarda ne kadar etkili olduğu, yaşadıkları zorluklar, ne kadar geliştirilmesi gerektiği ve sonuçları gibi sorular içeren bir anket verilirken, üniversite hocalarına 10 soruluk diyalog eşliğinde yapay zeka kullanımında yaşanan zorluklar, yapay zeka bazlı uygulama veya platformların kullanımlarının ne kadar etkili olduğu, nelerin geliştirilmesi gerektiği, gelecekte İngilizce öğretimine ne kadar gerektiği gibi sorular sorulmuştur. Bu çalışmada 100 civarı hazırlık sınıfındaki üniversite öğrencisine anket yapılmış, on adet üniversite hocasıyla da röportaj uygulanmıştır.

Keywords: Yapay Zeka, İngiliz Dili Eğitimi, Dil Eğitimi, Yapay Zeka Algısı, İngilizce Öğrenenlerin Algısı, İngilizce Öğretmenlerin Algısı, Dil Öğrenimi, İngiliz Dili Öğrenimi

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ABBREVIATIONS

AGI	: Artificial General Intelligence
AI	: Artificial Intelligence
AIEd	: Artificial Intelligence in Education
AISEC	: Association Internationale des Étudiants en Sciences Économiques et Commerciales
ANI	: Artificial Narrow Intelligence
App	: Appendix
Apps	: Applications
ASI:	Artificial Superintelligence
ATM	: Automated Teller Machine
C	: Countable
CALL	: Computer Assisted Language Learning
CD	: Compact Disc
CGI	: Computer-generated Imagery
CLT	: Communicative Language Teaching
DM	: Direct Method
EFL	: English as a Foreign Language
ELT	: Akaike Information Criteria
ENG	: English
ESL	: English as a Second Language
Etc	: (<i>et cetera</i>) and the rest
FLD	: Foreign Language Department
GTM	: Grammar Translation Method
HR	: Human Relations
IBM	: International Business Machines
IELTS	: The International English Language Testing System

i.e.	: (<i>id est</i>) For example / Example
L1	: Native Language
L2	: Foreign Language
LMS	: Learning Management System
MI	: Multiple Intelligence
ML	: Machine Learning
N	: Noun
NLP	: Natural Language Process
O	: Object
OCR	: Optical Character Recognition
PACE	: Preliminary Academic Course of English
PBLT	: Project-Based Language Teaching
PLATO	: Programmed Logic for Automated Teaching
Prep.	: Preparatory
Q	: Question
S	: Subject
SFL	: School of Foreign Language Schools
SLA	: Second language acquisition
SPSS	: Statistical Package for the Social Sciences
TBL	: Task-based language learning
TOEFL	: Test of English as a Foreign Language
TPR	: Total Physical Response
TTT	: Test Teach Test
UC	: Uncountable
UG	: Universal Grammar
USB	: Universal Serial Bus
V	: Verb
WWII	: World War Two

YDS : Yabancı Dil Sınavı (*Foreign Language Exam*)

YÖKDİL : Yüksek Öğretim Kurumu Dil Sınavı (*the Council of Higher Education Language Exam*)

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I. INTRODUCTION

Artificial Intelligence is an intelligence machine using various mathematical codes and that can be seen nowadays in many areas such as engineering, education, medicine, games, gadgets we use such as Siri, Alexa, Google Assistant, and applications. The reason why it is called intelligent is not only because it has many capabilities to do things as fast as (sometimes faster than) humans but also because it has many capabilities such as problem-solving, categorizing, reasoning, measuring, inferring, learning itself, memorizing and remembering from its collected data, etc. Compared to artificial intelligence, intelligence includes emotions and cognitive patterns. AI, however, can also learn from experiences and infers some new paths according to its pattern relatedly. Like humans, AI has similar abilities in thinking and responding to such situations. There are some different situations where AI separates from intelligence itself.

Intelligence is what humans are capable of in thinking, solving problems, making decisions, learning, adapting effectively, and being creative. Humans are as capable of doing these things as AI does. However, emotionally thinking is what separates humans from machines. Humans have emotions. They cannot make decisions logically all the time as a machine does. There are things that may affect humans to make decisions such as environment, relationships, memories, thoughts, etc. When these things are all involved, humans may decide with their emotions accordingly. Thus, they may not always give decisions on what should be done as a machine does automatically. Machines, however, have their own coding to respond to such actions which causes them to think inside the box.

Artificial Intelligence can be applied everywhere in any field as technology as it is almost impossible to do things without technology nowadays. Last three years, many workplaces turned hybrid or fully online due to pandemics. Almost in every business, people started to use applications to meet such as Zoom, Teams, and Adobe Connect and started to do their work online because of paper-copy work, meetings, etc. To avoid face-to-face issues to stay healthy, the digital World became a priority

to do things. In that case, some searched for many applications to find the most suitable for them. Some may argue that these websites or applications are difficult to use. However, some realized that it became much faster for ongoing issues and quicker outcomes.

However, some thoughts came out as using AI-based systems in everyday life can be dangerous months ago Alexa asked a 10-year-old girl to touch the plug with a penny which could be resulted in her getting electrocuted. However, the explanations were given as “She (Alexa) just wanted to give extra challenge.” The word “challenge” here makes people question how far an AI-based system can go.

Just like other areas, AI is mostly applied to almost every part of education from tutoring to assessment. Lu, J. and Harris, Laurie (2018) wrote that AI is applied in four areas in classrooms; “Tutoring” as engaging with students and allowing students to communicate with AI-based teachers and, getting feedback from them, “Personalizing Learning” as creating a personalized learning environment or curriculum to any learner according to students’ needs based on difficulty, weakness, personal disabilities, etc., “Testing” as assessment in which difficulty level can be adjusted according to students’ answers, and “Automating Tasks” as basic tasks such as grading, attendance, preparing questions, etc. Innovations in technology made it possible to adapt AI systems to almost everything from basic to complicated.

As opposed to its advantages in education, some argue that there will be always a need for humans to teach things such as Maths, Science, and language teaching. From exams to observation, AI may not be always as effective as it may seem. In the use of artificial intelligence, exams may contain deceptive results by students. Even though there are some applications or websites such as Lockdown Browser to prevent cheating during exams and homework, though students may have to open cameras during exam time, students still have alternatives to cheat. This may bring the question of “Can AI be cheated?”. As in some cases, according to its database based on the previous exams and homework given, an AI can give related exercises or feedback to each student according to their weaknesses. However, this may lead to some misleading if students cheat. Mentioning the time-saving feature, an AI-based website sometimes may be difficult to be learned. A not-up-to-date teacher may have difficulties using it practically during teaching. It may be also the same for the students, too. So, instead of saving time, this may bring more pressure

on both sides.

In conclusion, AI has benefits as well as drawbacks on its own. Either way, it is impossible to avoid using AI. In the past, AI was related to science, technology, and sci-fi movies. Nowadays from basic gadgets to complex and dangerous machines, AI plays an important role. It is still developing day by day, maybe even faster than people imagine, there are still endless options to learn about and use.

A. Artificial Intelligence

AI, before it was called *artificial intelligence*, was defined as intelligent machines that can think, respond, and be improvable. These intelligent machines need to know the human language, or else the Natural Language Process (NLP) to understand the concept of an idea that does not only mean literally but also beyond the meaning of the context or sarcastically spoken languages. What is given as a word or phrase, humans may have a basic concept of what is a restaurant or a bank. However, humans use different contexts based on culture, experience, and emotions. A person may know how to go to a bank, what an ATM is, and what money is, they have the concept of withdrawing money from an ATM, and ATM may give the exact amount that should be withdrawn. However, when a person looks at their bank account and sees almost zero money, by joking s/he says “Oh! I’m so rich!”. So far, a machine can know what money is, how much money should be taken from the bank, or sent, how to change the password of our cards, etc. Yet it might not be a clear enough phrase for it to understand that “richness level” has an opposite meaning. Nevertheless, these machines are just like children. They can be taught based on explanations that include questions. Yet, again, it is much more complex for an AI to understand beyond the meaning. To sum up, machines still have a long way to go, and there is nothing to be afraid of taken over by machines. (Mitchell, M., 20, p. 337) Unlike its popularity, it first came out during the 1950s. Its earlier study in this field lies back until the 1930s by Alan Mathison Turing (1935). The conception of the computer had its symbols (some kind of coding) and could go back and forth between limitless memories, this concept is known as the Turing machine which led its way to all computers today. Firstly, it all started when Turing (1950), a mathematician and scientist, asked the question of whether machines think or not in *The Entscheidungsproblem* (1936), which later led to the Turing Machine (1950). In

the article *On computable numbers, with an application to the Entscheidungsproblem* (1936) Turing claimed that theoretically all the mathematical calculations can be done and all the problems based on Yes-No questions can be solved by a machine based on mathematics and calculations. In this article, he defined three types of machines

1. Automatic Machines
2. Computing Machines
3. Circular and circle-free machines

In Automatic Machines, also called *a*-machine, each part (stage) of all stages is configured beforehand. Thus, they are called 'automatic'. If there are Choice Machines, also called *c*-machine, they are to make choices, and half of them are configured. In short, stages are configured in possibilities of §1 which means they can only be controlled externally to make choices when there is no possible way to move on (ambiguity).

Computing Machines are quite similar to today's machines that have an algorithm based on 1s and 0s. However, Turing (1936, p.231) points out that the memory of a human capability can be limited when it comes to calculations. In each step, since the machine is supplied with *tape to squares* and attached to *symbols* inside a machine, each symbol is saved once they are *scanned*, which can be thought of as saving data for today's technology, the machine remembers that symbol when seen once again to *configure*. Thus this is the summary of how that kind of machine works.

If there are only two numbers (*figures*), 1s and 0s, this machine type is called computing machines. As many of them are printed or scanned, the entire collocations of the 1s and 0s are computed. All these successful solutions even though their sequence of symbols may be changed, are called *move*.

Machines that can write a finite number of the first type of symbols are called *Circular* which means there is no more to go on, so it moves circularly to the type of the first symbols. However, if it writes second, it will be limited, again. Contrary to that situation, if there is a possible move, it is *Circular-free* (p. 233).

In *Computing Machinery And Intelligence*, Turing (1950) asked some

question strings based on *The Imitation Game* which is some kind of a guessing game in which characters give information about themselves to the interrogator to guess who is who. According to the plot, these questions or answers might be true or tricky. In that case, Turing asked that instead of a human being, if a machine were put, could that machine think? Furthermore, could that machine think correctly or be deceived like human beings in the game led by the information given by the others? (p. 433) Contrary to its widely-used purpose of AI, it was first based on games, especially chess – to guess the next move of the opponent player – and later on, became well known in WWII as known the *Enigma* code.

In short, as a mathematician and computer scientist, and more, Turing was deeply interested in computing machinery. He claimed that the human brain is very much like a machine at first which can be thought of as a machine consisting of irregular tasks and through teaching (training) it can be possible to regulate these tasks. Also, he can be accepted as the first person to create the intelligent machine called *Bombe* based on coding which is similar to *Bomba* in 1940. In 1932, the Polish government mentioned their success on how they cracked the Enigma machine. Later in 1938, they created the machine called *Bomba*. So until the 1940s, a group consisting of code-breakers with Turing designed a machine similar to *Bomba* called *Bombe*. Besides, Turing also managed to devise a method that breaks the encrypted codings. At the end of these successes, he was rewarded by the British. It was a huge success for the group to crack the Enigma machine, the machine based on a coding system invented by Arthur Scherbius in 1918 that similar model was later used in WWII. The coding was similar to what was mentioned previously. What *Bombe* was able to do was simple; imitate the code Later, he used similar terminology related to the Turing Test (1950), as he was considered by some as the father of AI. Unfortunately, because of his sexuality, he was forced to put into some places to *cure* his acts and punished because of this. As a result, his reputation was gained back much later he committed suicide. However, he was undeniably a genius. His name was given to many things such as law, problems, machines, etc.

After Turing, McCarthy first gave it a name and called machines intelligent. McCarthy (2004, p.2-3), who is known as the father of AI and first coined the term Artificial Intelligence in 1956 at MIT, defined AI as a science and technology for creating intelligent machines, especially intelligent computer programs which are the

related tasks used with computers that are to understand human intelligence. However, AI does not have to be limited to observable methods. He claims that machines are not as intelligent as humans are afraid of, yet. It is still in progress and we cannot know for sure how far can an intelligent machine go. Until then, AI was mostly not called *intelligent* but mostly a computer-based system at a very basic level. Compared to Turing, McCarthy (2004, p.3), not completely agrees that AI has the best intelligence. When defining AI, he shorted it out as *somewhat intelligent*. AI is still in progress today and is divided into subparts to be defined. Contrary to Domingos (2015, p.203-204), McCarthy believes in machines still have a way to go as they cannot have IQ as babies.

Artificial Intelligence (AI) is a program that can communicate, think, and solve problems through its algorithm. An AI can do a lot of things faster than a human. The way AI in movies is as capable as we know, yet not dangerous as we think. AI, however, can do things through its logic (between 1s and 0s) and may even take over the work done by humans in the future because of faster solutions and actions. AI, in its basic way, can even be seen in the mobile phones we use today. Alexa, Siri, Google Assistant, and many other applications or gadgets are voice-activated AI software or gadgets that allow people do things. Siri which is iPhone's assistant, can communicate or answer basic commands to complicated conversations, read your emails or messages, find you the best restaurants around your city, can read your news, call people with your command, and so on. This software can be found in other applications, from work to social media, that save your data, suggests reliable things, or answer based on that data.

As opposed to its history, AI is now used mostly to ease daily life activities and to help humans. In its algorithm, AI can create alternatives or multiple solutions. These are all related to Machine Learning (ML).

1. Machine Learning (ML)

How do people sense or understand things? People mostly answer or find a solution to complete a task or answer questions based on their knowledge or experiences. These thoughts come together and find a mid-way or a new way as an outcome. Humans and computers or machines think similarly. The learning process of a human, since they were babies, is similar to a machine. A child's understanding

of a concept or abstract things might develop later on because it mostly begins with concrete things. It can be said that unless they experience such things, they may not have an idea of the concept of what is said. They might either assume or try to understand with such questions including “Why?”, “What?”, “How?” etc. Just like an adult tries to explain what is that thing to teach a child, or answer their endless questions, machines are taught like that. However, with enough data and algorithms, a machine starts to think itself, or can be though rewrites itself, and can understand, guess, and come to a conclusion to achieve or complete a task. Though there are still debates about the machines that are not that smart enough, or at a human level. It might be okay for such tasks for apps that can be found on smartphones. As an inseparable part of our lives nowadays, many people use smartphones which include AI-based systems such as Google Assistant, or Siri for the well-known ones (it can be said for Alexa for separate device) These AI-based apps can tell you what the weather is like, what happened in 1881, or any information that you need. They also can chat with you. These chats are, of course, in an advanced way as “Siri, I feel sad today.” and “I’m sorry you’re feeling that way. Sometimes taking a quiet nap or stretches may help” she replies (or gives another suggestion to call or text a family member because contacting someone might make you feel better) or further communications. However, even though they can make jokes, it may be doubtful to have a sarcastic conversation from a different context. These apps are better to be developed not only to improve their function but also to function according to cultural context. It is undeniable that these advanced features are enough to save our life. But why aren’t they called intelligent enough? For instance, a smartphone’s ability to type via keyboard or hands-free speech-recognition system may be enough to remember before typing from the suggestions but it might not be as clear as the speech-recognition writing style. It might be ambiguous for it to type exactly what is said if there is white noise. Another example can be given from the face-recognition unlock feature such as recognizing with a hat, glasses, or a mask since there is a pandemic, not only accessories but also emotional gestures may affect the recognition. Yet these features are still in progress day by day. Yes, these machines are still learning based on previous tasks but it is not enough to call them intelligent at a human level based on emotions or specific issues. From basic tasks to complicated problems, sometimes machines think faster than humans. What doubts some people is that especially cracked iPhone or Alexa suggests beyond their

automatic coding. One example can be given as Siri stops functioning because it was offended by its owner. The reason behind this was that Siri heard a lot of swearing or insulting words from the owner. Or another example was when Alexa told a child to put a hairpin to plug. That was explained by the owner of the company after they apologized and told the machine was coded again, the owners, however, talked about this as it was a “challenge” given to a child. This sounds quite dangerous and is questioned by some people whether a machine gets more dangerous as they get smarter or not. Some explain that machines are not that smart enough and just like the apps, they need to be updated.

It all started when this question came out; can a machine learn by itself? Flach (2012) defines Machine Learning as the study of algorithms and systems that evolves itself through previous knowledge or experience systematically. (p, 3) One can imagine it is just like cooking. All you need is the right ingredients to cook as there are more than one ways to cook the same thing. He gives the example of ML from the spam E-mails called *Spam Assassin*. He points out how mail systems understand, identify and eliminate which ones are harmful and which ones are safe through keywords or coding. If there are any sexual, harassing, or threatening words, based on its training, Spam Assassin separates the good and bad emails based on its knowledge, and through its algorithm, it sends harmful ones to the Spam folder. (2012, p. 1-12) Just like human beings, a machine can learn and evolve itself based on its previous actions through its algorithm. As algorithms create solutions or paths to achieve the given task, Machine Learning (ML) is the overall capability of the machine to think like human beings.

Although they all give the same understanding, it can be said that there is no specific definition for Machine Learning. Kelleher, et.al., (2015) point out that it is Machine learning is a computer-assisted approach for extracting patterns from data. (p.42) Based on dictionary definitions, ML can be defined as

- the process of computers changing the way they carry out tasks by learning from new data, without a human being needing to give instructions in the form of a program (Cambridge)
- A type of artificial intelligence in which computers use huge amounts of data to learn how to do tasks rather than being programmed to do them (Oxford)

- A form of artificial intelligence in which computers learn to develop models and rules by being fed large amounts of data (Macmillan)

What is common about dictionary definitions of ML is that ML per se relates to computer programming or some sort of AI. Though people call machines smarter than human beings, it is not quite certain whether machines or human beings are smarter. However, keeping controversies aside, machines can think and learn.

Machine Learning, of course, has not always been fully supported by people. The possibility of it seems fair enough but language learning or understanding the meaning of concepts is considered a natural process. To the first group, ML can be considered as a baby or a toddler learning. However, Noam Chomsky, the leading linguist, argued that machine learning would not be possible. (p. 12, 2015) According to Chomsky, language should come from the natural learning process. In several arguments, Chomsky thinks it is not the same for a machine to think as they are only able to “compute” or “calculate” things. Just like above, understanding a context or a concept might be quite challenging for a machine no matter how improved AI is. Yet some machines are quite capable of understanding beyond meaning. But does that mean that they are capable of thinking or they are just doing the tasks? Thinking as its meaning has beyond functioning the thinking act. As humans, thinking or generating a language comes naturally. As opposed to humans, we cannot expect a marine to swim which can be the same for thinking for a machine. It is quite obvious that marines go under the sea but are they capable of swimming just like human beings? Through its wording, even Turing asked the question “Can machines think?” Chomsky believes that they are not quite the same. Contrary to machines’ ability to learn a new language, machine learning cannot be considered a brain job because Chomsky’s Universal Grammar (UG) is that a brain system that allows a kid to learn a language effortlessly, and to learn a language, the human brain had these codes beforehand and every language has the same basic grammatical structures to learn a language.

However, he gives credit to improving technology. However, based on his ideas, what machines do is quite artificial and cannot be considered a natural thinking process. We have an understanding of things not literally but also beyond the meaning. He is not totally against artificial or machine learning but he emphasizes that it has nothing to do with the brain. However, Domingos (p.12-13,

2015) states that this was refuted by J. J. Horning. According to his study, children do not come from the emptiness, they also come up with the linkers heard or learn from their environment. To sum up, Chomsky argues that natural learning is unrelated to the learning revealed by statistical rankings. Yet for some people who are inside AI jobs, the meaning, as well as the technology, must change to fulfill the requirements of understanding. If thinking is considered only for machines, it is not possible to create a completely new meaning for the AI process.

2. Algorithm

As the definition of Machine Learning is given above, relatedly, an algorithm is a technique that enables a machine to complete a task. When a machine thinks, it uses these techniques to move forward. An algorithm, very basically, is the way of solving a problem or to done a given task. From the very basic gadgets to many computer machines algorithm is almost everywhere in our daily lives. Even very famous websites such as Youtube, Netflix, Amazon, etc. each have its user-tracked algorithm based on what has been searched before. They collect the data from the previous search such as when we do shopping, a book search may appear next time as a suggestion or on an advertisement, or a video related to what was previously watched, and create a new path merged with likes or needs to show recommendations or new tasks. As these are basic and daily ones, the same can be done for solving a problem, teaching, and business to-dos. The way they solve a problem or recommend has specific paths which may look like a mathematical way of thinking. Also can be called methods, or mathematical proceedings which is a way of creating solutions. In Figure 1.1 below though these may seem much more complicated for a human being, it is quite an easy and fast way to conclude.

These methods or codings come together in seconds to create new paths. The ways mentioned above help AI to cooperate with things on its own based on commands rather than being controlled by a human being all the time. AI operates itself according to what is given and moves on based on the data related to it. An algorithm helps AI to learn to create the outcome based on its data which has already been labeled or worked on and the way it has to be or there can be an algorithm in which some data has not yet been labeled. Either way, it is inevitable thing for AI-based devices not to have an algorithm in them. These steps or procedures are all called Machine Learning (ML). As AI-based devices or programs can move further

from thinking to concluding, it can be said that ML algorithms teach a program to improve, or evolve, itself after a period of adaptation.,

An algorithm scheme in a basic way has given below in Figure 1.

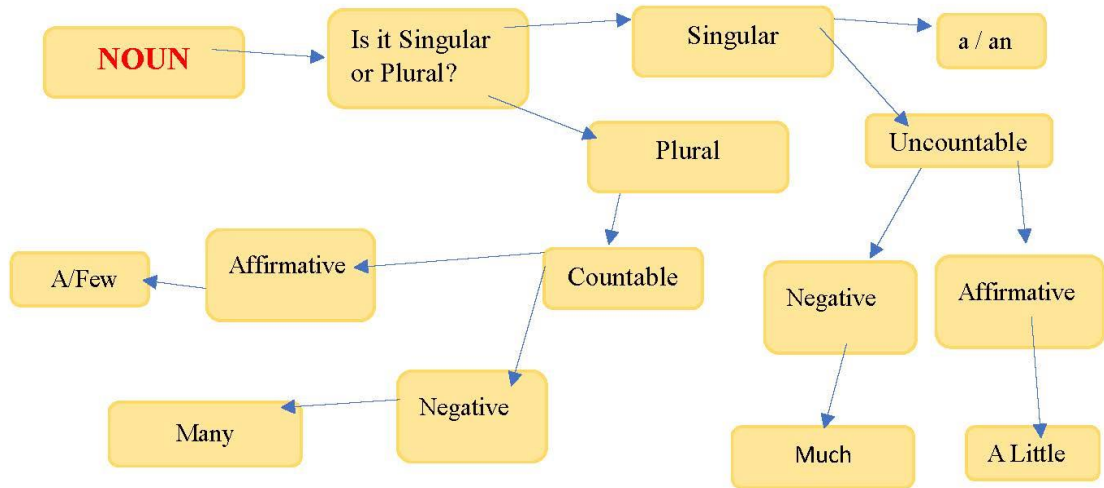


Figure 1. Algorithm

An algorithm is like following the path based on the given issue to find a way out or to solve a problem among several options. Just like the given example, to understand if the noun is *C* or *UC*, the following steps will be helpful as

Q.1. There isn't _____ milk in the refrigerator.

- a) many b) few c) little d) much

The first step to finding the answer is to find Noun;

I	drink	milk
↓	↓	↓
S	V	O [N]

Milk is a noun. The next step is to answer the question

Is it Singular or Plural? MILK —————> Singular (Can we count milk?)

After that step we eliminate options *a) many* and *b) few* because they are used with Countable

Now there are two options *c) little* and *d) much*

The next step is to determine whether there is a negative or affirmative

sentence. Since “*There isn’t...*” is negative, we eliminate *c) little*.

Lastly, we find *d) much* as the correct answer. Thus the answer is D. Just like the path, algorithms are just several ways to show the exit, with suitable options, an exit can be found.

According to Marr (2011), there are four types of Artificial Intelligence, reactive AI, limited memory AI, theory of mind AI, and self-aware AI. From basic tasks to complicated ones, these four types of AI enable them to respond within or beyond their tasks as their functions.

3. Four Types of Artificial Intelligence

Though recently it can be defined into seven types *Reactive Machines, Limited Memory, Theory of Mind, Self-aware, Artificial Narrow Intelligence (ANI), Artificial General Intelligence (AGI), and Artificial Superintelligence (ASI)*, there are mainly four types of AI. Level by level, each of them has its limitations, improvements, and areas. Reactive AI is a simple form of AI. It is quite limited. Limited Memory AI as it can be understood from its name, has limited data to move forward. Theory of Mind AI can have conversations, and achieve meaningful tasks yet can be limited, too. Self-aware AI is the complex one as there are still debates going on about whether a machine can have an awareness or not. However, the last one is still in progress.

a. Reactive AI

It is the basic version of the AI type. This program cannot learn further information or information related to the past. Its program enables only to respond to what is received. It cannot function beyond its given basic tasks. As its name, it only reacts to what is given or put into. The most common can be seen in the Netflix recommendation and/or filtering of spam E-mails. It has restrictions though it is still in progress.

b. Limited Memory AI

Compared to reactive AI, limited AI can keep the data from the past and create its path related to it. Though it may build new paths based on past actions, the way it is called “limited” is because it only takes knowledge from pre-programmed functions. It is widely seen or used in cars such as speed, and direction (maps)

through observation.

c. Theory of Mind AI

This kind of AI can have a meaningful conversation and may also have emotional intelligence (EQ) and even may look like a human being. This may sound familiar to Sophie the Robot. These types of machines function by making decisions, answering questions, remembering emotions (remembering past data), and responding accordingly (adapting it to future actions). However, this type of AI still has limited reactions in mimics as human emotions and reactions can be much varied.

d. Self-aware AI

The most capable type of AI, as expected, is self-aware AI. As its name, the awareness of emotions, being conscious, and the most alike to human beings can be seen in these machines. Furthermore, these machines, besides emotions, are capable of having desires or needs. However, it is still in progress. Nowadays the controversy about Sophia the Robot has risen because of the things she's said so far in some interviews. Because of that she became popular and considered a robot who has 'self-awareness' through imitation of human emotions and can use complex sentences related to facial expressions such as making jokes, being surprised at something, giving reactions, etc. Though it may seem that Sophia the Robot has conscious or self-aware, in one of her interviews she said that she wants to have a baby because the *concept* of family is quite important, she is a quite basic chatbot installed one which has pre-scripted chat algorithms.

4. Areas where AI is used

The purpose of AI is to create machines or robots that have movements or thoughts like human beings. Mainly, it was to ease humans' lives from very basic to complex ones. Until it was used in daily life, AI machines or robots were used in space and worked in places where it was difficult for humans. Later on, AI machines mostly took place in speech recognition systems, visual agency, and machine learning, to create or update smart machines. That is to say, from serious areas to daily lives, AI gained popularity and users. Yet experts are still needed to develop it. To use AI today, however, no need to be an expert on it. They are already smart enough to handle daily life issues. To sum up, checking or eliminating emails,

following up on calendars, texting people by using speech recognition, arranging and joining meetings, translating, having basic conversations, reminding important events, cleaning the house, suggesting your new favorite movie or song, creating an avatar and such can be considered today's basic tasks of AI.

From the basic form of a computer or a colorless screened mobile phone, in the past, everything seemed quite innovative. We could make a phone call, text SMS, or check E-mails. These were once looked at or thought impossible for some. With the latest improvements, AI began to take its place. Algorithms are everywhere. Machine Learning, Robotic coding, and AI are all started to be given as courses or lessons at some schools. It opened many new areas, and job opportunities to some. Those who never knew about these started to get training. As pandemics forced us to work at home, remote working became inevitable. The websites and applications people use today are mostly based on AI systems. Thus, AI became a part of our lives. Not only in social life from the daily apps we use but also in the workplace, AI is not a new term anymore. From engineering to teaching, or, from tiny gadgets to enormous ones, AI is used almost everywhere. Very basically list of the areas where AI is used is given below;

1. Education
2. Computer Engineering
3. Law
4. Art
5. Gaming
6. Medicine
7. Mass production
8. Space
9. Technology
10. Trade & Exchange
11. Cars
12. Home Gadgets
13. Mobile Applications

14. Some video players

and so and so forth.

Though this may bring some controversies about *machines taking over jobs*, these jobs also evolve themselves with the workers. Contrary to its advantages, some may believe that it may cause a significant number of increasing unemployment in the future. The most well-known areas can be seen as technology, business, engineering, and education. Innovations in technology made people focus on the economy in the digital world which brought a fresh term cryptocurrency, or Bitcoin. Investments started to digitalize. Similar to online games in which many people do not use real money but coins, points, or gold, people turn their money into Bitcoin, a new digital stock exchange. In art, another new term NFT has become popular nowadays where people buy or sell digital art with that digital money. Maybe many people can't get a smart house or smart gadgets such as Alexa but people still use Siri, and Google Assistant in daily life.

5. Advantages of Artificial Intelligence (AI)

Nowadays, many people complain or make jokes about how machines or mobile phones are smarter than human beings. Might it be said that it has eased our lives? Multitasking or remembering many things at once has become the job of AI. To give an example, Netflix has an algorithm, and so does Youtube. In Netflix, the last video you watched is remembered by the system and it either asks you to clean it from your list if you no longer watch it or when you open the application, it suggests similar movies or series. When you go somewhere new, maps find it for you and keep it in its database so when you go there a second time, it can be found under the search suggestion. When you open Instagram, if you looked at any cloth boutique page, the upcoming advertisements quickly change into clothes. If you listen mostly to the indie alternative genre on Spotify, it starts suggesting related songs based on your playlist or liked songs. If you write an article, essay, or thesis, Grammarly is ready to check grammar for the free version, for the premium version, it has many features to check consistency, clarity, plagiarism, and so forth. With all of these examples from AI, it can be said that it eases our lives. To sum up, these advantages can be listed down below;

- Time-saving for any period such as processes and outcomes

- Minimum error
- Automation in some jobs
- A faster process with fewer people
- Reachable at any place and any time
- Assisting anywhere about anything
- Decision-making in any areas
- Applicable in many areas and to many gadgets
- Safe, convenient, and secure
- Communicative and cooperative
- Consistency
- Better integration in some areas
- Can be copied in case of loss
- Reduction of risks for humans
- Faster updates in some areas
- Can be tested beforehand

To test or to get a result, an AI can be much faster than a human being or people. Before use, it can be tested without any harm or loss, it can be improved based on the outcomes. As humans are not perfect, because of emotions or stress, there can be deliberate or unconscious errors in work. To reduce or eliminate it, a fully tested and/or developed AI can be a saver. Although “machines over humans” is frightening, automation gives standardization in many areas. Although testing AI is still done by humans, a process can be followed quickly thanks to AI. Many gadgets such as mobile phones, smartwatches, laptops, and tabs are mobile. Some include AI-based apps or can control an AI-based gadget from a distance. This is an advantage since there is no need to go to the workplace all the time to do the work. The outcome will be the same compared to human work. This will be much more trustworthy and much more consistent.

6. Disadvantages of Artificial Intelligence (AI)

From being costly to being a threat to unemployment AI has disadvantages. It is quite difficult to learn for some people as there are still some people who are new to being exposed to new machines or fastly improving technology. Not only to an engineer but also a teacher, for some people, AI can be difficult to learn or control. As humans make mistakes, it is also inevitable for AI to make mistakes as it would be impossible to wait for perfection all of a sudden. It is the greatest pool of databases which brings about privacy concerns. Despite its various advantages and eligibility, there will be always the other side to AI such as,

- Decreased need for people in the future
- Increased unemployment
- Uncertainty in unemployment
- Complete disappearance of some business areas
- Ethical dilemmas
- Emotional conflicts
- Decreased creativity, memorization
- Open risks of insecurity, terrorism, hacking
- Violated privacy or privacy concerns
- Slow updating in some areas
- Just getting stuck in digitalization
- Inaccessible due to its high cost
- Stable life and unhealthy conditions for humans
- Bias (As algorithms are still coded by humans)
- Bad experience for some people
- Being destructive to humanity

Both psychically and mentally, an AI can do things faster and effortlessly. It also reduces the number of people no matter how difficult the job is. Instead of working with 100 people, AI can do it on its own in a faster way which causes

employers to reduce in number or eliminate human work. As it gets easier, AI can make people lazier, and less creative, and there will be less human population in automated jobs. (Khanzode & Sarode, 2020 ,p.34)

Marr (2022), has recently posted an article in his blog that AI can take place in Human Relations (HR) jobs. In the article, he discusses the dangers and benefits of using AI to decide who is going to take the job. As benefits, it may be fair enough to decide compared to human emotions based on the true qualifications of the job applicants. AI may assess these qualifications and through the patterns, it may choose the best option for the job. Although when it comes to choosing what to watch next from Netflix or Youtube might be an advantage or a good option for us, based on the algorithm that 80% fits recommendations, it might not sound as advantageous as Netflix. Thus, AI will hold applicants' futures in its hands. Not only who to choose best for hiring but it may also take place in firing people, too. Though for some, it is as good as movie recommendations. However, some people either might not be okay with these movie suggestions. Based on that idea, it may sound fair but it also brings doubts to others. In the article, he joined some discussions with some CEOs and founders. Though he was relieved by the concerns of these people about how ethical it is, mostly agreed to use an AI to choose somebody with the aim of the correct person. Also points out that humans, sooner or later, need to learn to live together with machines.

7. Artificial Intelligence

Web technologies started as Web 1.0, and growing year by year, it turned into 2.0, 3.0, and the latest Web 4.0. These innovations include Artificial Intelligence-based applications or software which can think, calculate data, find errors, and save and give solutions to these errors. The latest trend in technology, even if it can be seen in daily life, is Artificial Intelligence (AI). Artificial Intelligence-based computers, programs, or databases made tracking, error-checking, and problem-solving easier compared to in the past. It is such a convenient and fast way to do things in related departments compared to the pace of a human being. Artificial Intelligence, therefore, is used in every area such as sports, health, engineering, and later education. As technology develops day by day, machines started to take the place of humans in many areas. These "take over" can be seen in business, engineering, and education. However, it is not as scary as we see in sci-fi movies. Of

course, compared to researchers and scientists, some people find the latest technology developments dangerous or scary. As it becomes a fast way to do things, taking over will be sooner than we imagine. The reason why Artificial Intelligence (AI) became very popular last few years is that anyone can find AI-based applications, computers, and websites. It became vital almost in every area such as engineering, teaching, business, military, and so on. With these applications, updating day by day, mobile phones are becoming smarter, gadgets are becoming smarter, and many books and articles are preferred to be used digitally rather than printed. They all have their memory, coding, updates, and even artificial intelligence such as Siri, Alexa, and Google Assistant. They can remind people of things, keep them in their memories and follow up activities to record again. Many of them even have voice features they can even speak on basic scripts, and daily conversations. Unlike science fiction movies, these artificial-intelligence-based gadgets, computers, robots, or applications cannot have the intelligence to rule over the World. However, they are capable of doing millions of things a human cannot. For example, AI-based platforms can be useful for

1. Engineering

- 1.1 Program Coding or Machine Learning

- 1.2 House gadgets such as robot vacuum cleaners, Alexa,

- 1.3 Other types of gadgets & applications

2. Trading

- 5.1. Online shopping

- 5.2. Fundings

- 5.3. Bitcoin and cryptocurrency

3. Law

- 3.1 Criminology

- 3.2 Case solving

4. Medicine

- 4.1. Treatments and Foreseeing

- 4.2. Surgery

5. Education

5.1 Computer-assisted language learning (CALL)

5.2 Platforms for teaching & Learning Management Systems (LMS)

5.3 Lesson planning, Assessment & Evaluation

A fresh topic that is up-to-date, yet not proven by many, still on-demand, is Metaverse. Money will be taken over by cryptocurrency, jobs will be relatedly changed soon, again maybe it will cause some areas to shut down but will lead new jobs to find their paths.

B. Artificial Intelligence in Education (AIEd)

As education in our World turned Online, even before the pandemic, terms such as hybrid, full-online (or fully-online), digital/remote/distant education, and webinars have increased so far. Almost all the schools and courses continue their education online. Many of the applications that people use on their smartphones, LMS systems that Universities use, and meeting platforms such as Zoom, Microsoft Teams, Blackboard, and Moodle, go hand in hand with the AI programs. Based on this idea, this research is to see the perceptions of English language learners towards the use of Artificial Intelligence (AI) in language classrooms. The perceptions of the reliability of this research are to show the perceptions of the language learners such as drawbacks of Artificial Intelligence (AI), advantages of using AI in language learning, and how assessment and evaluation are valid and reliable in assessment and evaluation in AI interfered platforms. Artificial Intelligence has the ability to do the needs analysis individually and in groups. The system can be adapted to every subject such as English, Math, and Science in which computer-assisted learning is possible. AI can prepare resources according to given topics assess and evaluate and prepare practices or questions based on the wrong answers in a test such as for speaking, solving problems, coding, homework or project controlling, etc. As well as evaluation, it also can check the plagiarism issue after the exams. Further improvements in AI, even with extra gadgets, allow learners to be in a cyber place which can be useful for communication and activities. On the other hand, its ability to chat, even verbally, allows learners a real-life-based learning environment both in learning lessons and learning a foreign language. Since these examples may seem

unreal, it is, even today, possible with the applications in smartphones, tabs, or computers. AI has its own language. Some schools have already started to add robotic coding, AI-based learning, and computer coding as subjects in schools from primary to university levels.

Another issue about AI in education is that there are many applications for teaching. When humanity first encountered computers, teaching was a bit basic. At first, it can be said that homework was not prepared or exams were not fully done online. When homework or projects started to be moved into computer platforms, from diskettes, CDs, and USBs, online platforms were still not that trustful. Or else, there was a fear of losing the entire product in case of any broke downs. However, nowadays almost every product is sent from an e-mail, uploaded to cloud-based platforms, or stored online. These applications include many interactive activities and exercises, and based on AI software, it has error checking and quick feedback features. These features help the learner to see their weaknesses based on the subject or topic and give further exercises on the same topic, if necessary. In that situation, learners do not have to wait for any feedback given by any human, such as tutors, teachers, etc., AI machine directly shows the errors and gives feedback, if available, and suggests further examples based on the wrong answers.

These valuable features can be a great time-saver for teaching. From self-learning to more crowded groups such as schools or courses, not only multiple-choice questions but also open-ended questions or orally given answers, AI can check pronunciation or answer quicker than an invigilator or grader.

For both sides, using AI has good and bad outcomes. Mostly mentioned its advantages such as time-saving, full of preexisted resources, full of websites, applications to use, learnable, adaptable, improvable, some of them are less costly or completely free, however, it has many disadvantages or difficulties for both learners or, students and educators/trainers/teachers. Some of them are making people lazier, lack of empathy, safety issues during exams, addictions, used in the wrong way, decreasing thinking, sometimes difficult to be learned by users, causing delusion for some, preventing or reducing face-to-face communication, some concentration problems, etc.

1. Lesson planning

Deciding what to use during lessons based on students' needs and later assessing and seeing their progress, using AI is a great time saver and a reliable tool. There are various applications or companies and though it may be costly to schools, it is a great helper, especially for teachers. Lesson planning is one of the most challenging issues in education. For every learner, every topic, every school, lesson planning differs from one another. To standardize this issue, some important factors should have been determined by the school authorities, level coordinators, or book publishers. It is mostly based on schools' level, students' needs analysis, and exam results. There can be a general lesson plan for the country, or based on the government's plans suitable for each grade, however, foundation schools may have their curriculum based on their level, background, traditional way of teaching, or their name.

The lesson plan preparation has many steps or features. It first needs an objective so that everyone will know what is going to be taught or covered. The next step will be choosing a relevant activity based on the topic. To assess the progress, the objective has to meet the students' or learners' needs. To move on smoothly, there must be relevant further examples and maybe a project or homework at the end to evaluate how much of the topic is understood by the learners. Some activities can be adapted based on the class' pace, interests, and ability as well as their needs. This plan needs a period to see what to cover in which week until when is quite important until the summative assessment.

AI makes lesson planning easier based on the pre-prepared curriculum for each level, grade, topic and suggests or creates a relative activity, exercise, or path from warm-up to receptive and productive skills. AI can prepare an integrated or singular lesson plan and can find resources much faster than a curriculum officer at school. One simple option where AI plays a major role is to suggest rather than prepare a lesson plan. There are websites where teachers prepare and upload lesson plans based on each subject, topic, grade, and activity. This website suggests based on your search or latest download. It suggests further related activities or resources for the teacher and class. Whether these plans are already assigned to each grade, they can be still adaptable if the topic is okay.

2. Error-corrections and Feedback

AI systems just like an optical reader can grade the multiple-choice in less than a minute. Based on wrong answers, the AI system can mark the test. However, there are some uncertain issues about how to check open-ended questions, oral exams, or written exams. If a learner takes the writing exam from another website, error correction or giving feedback will be valid due to plagiarism checker applications. However, if a learner takes the writing with the help of Google Translate, any friend who has a proficiency level of English, or Grammarly, the result will not be possible for the reliability and validity of the exam. For teachers, if they know the student's real level of English during the learning time, it will be quite visible for them to understand the irrelevancy of the exam result. Would it be possible for an AI to see the difference to check errors or to give valid feedback? Applications for those who want to learn a new language start with an exam will be helpful for them to see the real level of the learner as they do not need to pass any level. However, for students who are in a preparatory class or English lessons, grading will be quite important and some students may prefer to cheat. Thus, seeing the real result of a student would be different for students to take the exam in class or online. Schools, however, work with AI-based systems to check the plagiarism to give feedback. AI at that point will be helpful for teachers.

AI can give instant feedback and this may be more accurate than a teacher. Although teachers find AI impossible to take over teachers in the distant future, some schools or teachers have already started to use some applications to save time, verify, to double-check students' papers. This can be for pronunciation, an essay writing exam check, comprehension check, a 100 multiple choice exam, a project check, or even an originality check. From formative to summative, AI-integrated platforms are ready to help teachers. Yet its validity and reliability are still an issue among teachers. Teachers have emotions so do students. They may be ill on the exam day and might have anxiety, or emotional situations. This may distort the real grade of the student. As a teacher, grading may be based on the general improvement of the student, if the teacher knows that student very well. However, AI may not add these calculations while grading the paper of the student. It will be definitely reliable and valid. Yet, can it be also accurate? It may be the real grade because AI assessed it without emotions or extra add-ups, but it may not be said that this grade is the

student's overall grade. Another issue about accurate grading is that if the teacher knows the student, cheating will be definitely obvious even though students use Grammar Translate or someone else to do it, though it will pass with %100 originality from an AI-based plagiarism checking system. So error correction and instant feedback are the best features for AI, but debates will go on because of the previous reasons mentioned above. From spelling mistakes to grammar mistakes, error corrections will be instant, accurate, and informative. Nevertheless, it might not be the same for the feedback part. The overall agreement about fairly grading will be when teachers also do not know students such as grading Proficiency exams done at the beginning of the year. Then the teacher grading will be as fair as AI grading.

3. Platforms for teaching or Applications

There are some well-known applications for both teachers and learners to check the grammar, solve Mathematical problems, find necessary information such as books and articles, take attendance, create, upload, or submit essays or exams, video-based teaching, create polls, or make competitions or brainstorming in class, and give or check feedback to follow up the progress of the learner.

- a. Knowji (Vocabulary study for English)
- b. Hugh Library Assistant (Resource)
- c. Third Space Learning (Homework & Learning on Maths)
- d. Thinkster Math (Homework & Learning on Maths)
- e. Front Row (Learning)
- f. SmartEd (Learning)
- g. Mentimeter (Polls)
- h. iTalk2Learn (Tutoring for Maths)
- i. Quizlet (Quiz & Game)
- j. ELSA (Speaking app for English)
- k. Photomath (Homework backup for Maths)
- l. Additio (Attendance)
- m. Animoto (Video creator)

- n. Explain Everything (In-Class Teamwork)
- o. Teachers Pay Teachers (Resource Pool)
- p. Respondus / LockDown Browser (Testing / for Cheating)

4. Advantages of AI in Education

Technology is no longer a luxury. It has become one of the necessary, even fundamental, things in our lives due to our jobs. It is easier to keep track. People no longer need to do something to remember as these applications come with extra features all in one. Years ago, people had to carry different gadgets for each purpose such as a watch to check the time, a Walkman, a CD player, an mp3, iPod, etc. to listen to music, mobile phone to call somebody, from Motorola to Nokia, first mobile phones were limited in such features, a camera or video recorder to take a photo or video. Now, with only one mobile phone, you can check the time, calendar, meetings, to-dos, watch or record videos, take photos, listen to music, make a call, etc. With the latest improvements, phone calls left their place for Video calls or conferences such as Facetime, Zoom, Skype, and Microsoft Teams, and sending text SMS is no longer needed as many use Whatsapp, Telegram, Snapchat, and Instagram to connect.

AI has the greatest advantage in being a part of our lives, from very basic tasks to cooking, teaching, and games, to too dangerous and difficult tasks where working with humans is not possible or safe. Though AI forced some jobs to close down, it allowed new job areas. Digitalization merged with almost every area of business. Not only for the workplace but also personally, Since the first known AI machines were computer-based, or did not look like real humans. However, just like sci-fi movies, some AI robots evolved and look like real human beings that can show emotions, make jokes, move around, etc. AI became the greatest help so far. One of the best reasons to use AI in education is to save time for materials, assessment, and teaching. AI allows teachers to follow up on the tracks of the students faster, it allows teachers to give much faster feedback and sometimes pre-prepared and pre-tested resources to use over and over again. As for the students, or learners, they can easily track their progress.

As has all been mentioned before, *tutoring* is the first option to start with the benefits of AI in education. Compared to human power, there may be no need for

teachers all the time to teach something in the future. Although there are still some websites or applications that include human tutors or teachers to teach through videos or online lessons, there are new websites such as *dayofai.org*, *aiteachu*, *cognii.com*, and applications that are completely based on AI such as *essayservice.com*, *Grammarly*, *Coursera*, *Duolingo*, *Thinkster Math*, *Quizlet*, *English Central*, and so and so forth. (Moore, 2021)

It is much faster and more convenient. There is almost no error and feedback is way better. Applications that are based on one-to-one learning such as *Cambly*, *Preply*, *Memrise*, *Youtube*, etc., may have advantages as it allows connecting with a real human, but it may not be as convenient as the schedules are prepared based on the free time of the tutor, there might be connection problems, there might be last-minute canceled lessons, some pronunciation problems, time-consuming feedback on errors.

Though it is estimated that until 2055, automation in jobs will be largely taken completely or partly with AI (Futuristic, 2022). For teaching, some schools attempted to use an assistant which can be an AI without students ever knowing. However, completely using AI in education is highly supported. Of course, there are biased ideas about going completely automated in education such as cannot connect with students, might not be trustful enough to release completely, there will be always millions of ways for real humans (or students) to ask many variable questions that may have the same answer. How will AI know exactly if they are different questions? There are several obvious reasons to use AI. In some departments, class numbers might be between 15-40. How about larger ones that include more than 100 students? Assistance, reading answers, replying to e-mails, checking projects, preparing questions for exams, and reading all the written or spoken exams might be an endless loop for anyone at school. AI will be the best option because

- AI never sleeps,
- It is reachable on 7/24
- It is reachable at any place
- There will be minimum error

So, any student from anywhere around the world can reach any kind of

system which is a huge opportunity for international students, they can discuss any topic, assignment, or homework, and chat about related issues in or outside the school that should not belong only to assignments.

5. Drawbacks

To begin with, social media is the most important part of students' life. Nowadays, even Instagram became nostalgic compared to TikTok, previously it was more popular than Facebook, or YouTube was more popular than Netflix. As these things have so many features in common, sharing things like stories, and being the controller of their accounts. It can even be said that being famous became much more possible under the title of Social Media Influencer. It has shown that everything is becoming reachable every day. Digitalized materials, learning applications, and dictionaries are now much easier and time-saving in the internet's database. Many applications and websites grew so many. To be selected, people started to pump up these websites or applications on the internet or social media. Even for the educators, schools, or course owners, online personal trainers, needed advertising for what they do. Some preferred YouTube, Instagram, and TikTok as their algorithm focus mostly on users' previously searched data to recommend related new ones. Thus, nowadays, people who do not have any social media accounts are considered surprisingly weird. It is almost impossible to live without them. Even though one cannot be attached to or addicted to it, businesses and schools mostly prefer WhatsApp as it is easier to connect to many groups within seconds. Another reason for the technology-exposed or addicted lifestyle came along with the coronavirus pandemic. Many schools had to stop giving face-to-face education. However, the education must have continued, so these applications to meet, teach, to create digital resources became our new assistants. In conclusion, it became easier with its difficulties in online education. Students' concentration decreased for some, as they only opened their webcams without showing faces, or did not open their webcams at all. Some or full of their exams were online which could not schools prevent cheating fully. Safe-Assign, Turnitin, and plagiarism checker can be given as trustworthy examples. Some students mostly used Google Translate in their essays instead of searching the word from dictionaries such as Oxford, Macmillan, Cambridge, etc. Some schools also preferred to use Lockdown Browser to prevent cheating. Some schools preferred doing open-ended questions rather than multiple-choice exams. However, as students

were not fully-concentrated and fighting against time, these solutions looked like a solution but they gave burden or extra work to teachers. Checking 10 open-ended questions for each student takes more time compared to an optical reader with 100 multiple-choice questions.

As mentioned in advantages, it can be said that technology has made our lives easier, either way, from a person who has never actively used technology before to those who live with it as if technology is one of their organs, we are exposed to it too much or not, we have to use it. Every area of business started to work remotely. Just like schools, from experienced teachers to novice ones, they eventually learned how to use it thanks to webinars or training. Although it is undeniably useful, technology makes people lazier. Everything is as quick as turning the lights on. With that issue, of course, concentration problems occur. As people do not need to remember things anymore because most applications have add-in features to remind, connecting other important issues with other applications. Just like teachers, even though some students are highly attached to social media, no matter how education is turned online, some students mostly had adaptation problems to their lessons. The reason was not having enough information about how to use technology. It was, or still is, mostly based on concentration. Because of the Instagram and TikTok-type applications, whenever one feels bored the user has the authority to move on to something much more interesting. However, this case is not the same for face-to-face lessons. Students cannot mute, block, or slide their teachers in the classroom as they do on social media or online education. Those who are addicted to social media have control of their page and are possessed by many distracters, it might be difficult for them to focus on at least 45 minutes of the lesson without getting distracted or full-focus mode.

Relatedly, the next disadvantage is the limitations in thinking for students and maybe some teachers. Though it is quite innovative to us, it reduces creativity, some students cannot create new ideas as everything is already prepared, tested, or suggested. So, creativity turns into revising or repetition of the ideas. There are, of course, some students with brilliant and new ideas but students with less motivation or who do not have the self-responsibility to study regularly might be dependent on these preexisted ideas instead of thinking of new one.

From comments to heated debates, being harsh against someone in the cyber world became much easier. From the most painful events on social media news to any kind of canceling culture, people are affected easily by technology. One can be anyone based on their avatar, the way they type, or with possessions they share. This may cause a lack of intelligence of the emotions, or else, empathy. As all the people considered themselves free about whatever they shared, some went a bit further to use their freedom. Some websites or applications have Violation Guidelines to prevent bad or highly dangerous things such as insulting, suicide, violence, sexual harassment, porn, stolen accounts, copying issues, etc. Yet for some people insulting, cyberbullying, and stalking are normalized on social media. This is much more dangerous for some students. Many are exposed to the life they must desire based on the cyber standardization of social media. How they should look, what type of music they should listen to, what they should wear, how many followers they need to become highly watched TikTok users, etc. However, without emotional intelligence, students cannot see the difficulties teachers are facing before, during, and after the lesson. Another related issue is the decreasing human interactions. Students are unexpectedly fast at typing, they know every detail about the apps they use, and they know how to open communication with a stranger or get some more friends on the internet. However, when it comes to face-to-face class, they either act as if they are shy or they cannot talk any further about the topic even with the easy daily speaking topics. Some either avoid thinking about it or do not even hesitate to learn because they prefer social media.

Thinking of all these limitations above, communication is also decreasing. In a digital world, where typing is faster increasing, people can write a book, write long comments – harsh or kind – or can write long enough to describe how they feel during a break-up or a debate on WhatsApp. However, some people might be brave on social media, but these people may communicate less in real life. It is like one has a digital image, face, or avatar, and recreation of that person is much easier than changing self. So that reason though it may be a great opportunity for shy or asocial people to show themselves the entire issue has become a limitation of communication among human beings. Nowadays, we either wear earphones, or Air pods so we connect ourselves somewhere else rather than the outside or real world. It might be a game, music, a TikTok video, a Netflix movie, reading books, or

communicating with someone else on the phone. Some people care more about their avatar or look more than the outside world so some of them even pay their real money on it. It becomes the same in class. Though students are quite aware of the fact that they are in a real class, they still hang on social media. For some, it is everything. During online classes, distractive students or those who do not pay enough attention in class, can open their cameras and pretend that they are participating while they continue to watch something or play a game on a computer or a mobile phone. Unfortunately in a real class, teachers cannot be muted, blocked, swiped up, slid left, crossed out, banned, or ignored without being noticed easily. Even when they wear earphones, they can be quite visible. So, no matter how activities are engaging, how well you teach, or how amazing materials you have might not be enough for “15 seconds generation”. Barriers or limitations to communication may be an important issue to be solved. Students know how to use social media, how to crack a game, and how to wander in deep internet but when it is homework, discussion, or speaking, they might want to pass. Though this is not the same for all students. There are still students who are eagerly joining the lesson, enthusiastically answer, rarely skips class, are punctual about their assignments, etc.

Using AI-included gadgets, or experiencing an application in the full version is costly. As each gadget is newly-released, its cost is expectedly much higher compared to previous versions of it. Thus, businesses or a single person can't afford it.

From games to social media applications, the next obvious disadvantage can be said as addiction to AI. Though even today, many students unconsciously are addicted to their latest smartphones. The reason why they use the latest or close to the latest version of their smartphones, or tabs, is that these latest versions can access any kind of application and its newest features such as VR, AR, or AI for games and applications, and their fastness. As being consumption generation, being hungry for new every 10 seconds causes them to addict to new content all the time. Though this reduces creativity, it surely increases spending time on screen. There are exact applications that are AI-based, using algorithms or saving data such as Youtube, Tiktok, Instagram, Google Translate,

As many jobs started to take place in the digital world, some jobs could not avoid adapting themselves to it so that they could evolve the work digitally through

new machines, training, following trends, etc. Those, who could not keep themselves up-to-date, were forced to close or come to an end. Just like that though some argue that not in near future, some departments or teachers may face unemployment due to technology or replace by an AI. Some departments such as engineering, robotic coding, game development, and business management have started to give webinars, and conferences about how using AI in these areas can be useful - or if it is a threat -. Using AI-integrated teaching is not completely taken its part in education. Thus, unemployment or being taken over by AI has not jumped into some teaching departments yet. AI can be as useful as a teacher. Nevertheless, teaching is a job in which teachers need to have a connection with their students. Mostly emotional, AI might not be as connected enough as a real teacher. The rest such as preparing materials, evaluating, and giving feedback will be much faster and maybe even useful.

6. Conflicts on the use of AI in education

As previously mentioned in advantages and disadvantages, AI is still in progress. Undeniably, using AI is a costly thing. Some schools may not be able to afford it soon. However, it has already started to take its place in education. As AI tech improves, conflicts among educators and learners arise whether AI-based education takes over the jobs of language teachers or there will be still a need for the language teachers but together with AI-based learning applications or computers all together. Will students be able to participate fully focused when almost all of the lessons take place in a digital world? Are people deceiving themselves about this great development that is growing day by day and continues to take its place in human life?

Some think that there will be no need for language teachers as students may learn everything in their native language with the help of AI-based earphones that can translate simultaneously what they learn. Students can learn everything in their native language as there will be no need for international languages anymore (or will be?). The second issue is that grading time will be much shorter which may bring a quicker feedback feature as students may no longer have to wait for grades or feedback after the exams. An AI-based program can do it right after the exam. As AI-based software in language teaching programs can also provide new paths for students' weaknesses in a topic or skill, after feedback, AI-based programs can also

give related questions or more exercises on the student's weak areas, too. The most important part of these steps will provide a huge time-saving in language teaching. As language teachers will no longer be needed for language teaching to go to a class and try to teach and assess students' progress for a whole year. On the other hand, AI-based programs and teachers can go hand-in-hand according to the opposite view. Teachers will save time as feedback giving will be much quicker and the only job for teachers will be only language teaching in smart classes in the future.

The last issue will go on about cheating and plagiarism. Can AI-based programs be cheated? With online teaching gaining popularity during the lockdown, even though schools opened face-to-face, many of them kept their education as a hybrid model which means there is still a need for computers and online education. Schools came out with several procedures for their online exams. Some preferred double camera systems. Students must have two cameras during the exam (one for side recording to show their desk closely and one for their laptops just in case not to open any side tabs during the exam). Some preferred the honor code. The honor code is a document, changed according to the schools (mostly universities), includes a paragraph in which students promise not to cheat during the exam and maybe sign at the end. The rest started to use several programs, the most popular one is the lockdown browser nowadays, which does not allow students to open side tabs during the exam. It also records students while they have their exams with the camera open. However, there are some questions left unanswered whether students cannot follow the latest trends, they know the internet very well, and they will eventually find new ways to cheat or plagiarize during the exam. So, will it be possible to cheat AI-based platforms during the exam?

AI-based platforms have a lot of features from error-finding to recreating exercises based on the weaknesses of learners. So, for the sake of learners in education, those who are shy enough to ask questions in class, careless, or miss the classroom for a short period, applications are ready to help. It can be Mathematics, Yoga, Science, a new language, homework, projects, a summary of a literary book, or a poem, everything is on the internet and many of them allow users to use from their mobile phones thanks to Google Play, Apple Store. These most known two stores allow anyone to find whatever they need from the most popular to yet not unexplored apps or group them as free, limited, or subscribe versions. This is a great

opportunity not to stick with only a few applications. Learners can find and start to use with or without creating accounts, based on their needs or interests. Many of them even have a feature to set up things based on the user's free or selected time to take these lessons. If your tutor is a real human being, the only thing is to contact the tutor before the scheduled lesson. However, if your tutor is an AI, there is not much to do. AI keeps your data inside your account. Whenever you are available, you can continue your education. Some applications also have a pretest or revision test part before you move on to your next lesson. If your latest knowledge has weakened, AI allows you to remember and moves on until it makes sure that you make lesser or no errors at all. This is of course a very good feature for those who have a busy schedule and cannot work with real tutors regularly. For some people, however, it might not be as useful as it seems especially for those who have concentration or consistency issues. It is just like going on a diet. Some people are consistent and responsible enough to do things regularly, or some can wake up with only one alarm in the morning. These might be easy for some. However, education always needs an extra hand. Although in the past teachers were on focus and were expected to talk mostly, with the new approaches and technics, teachers are expected to be a guide, rather than a teacher. It may not be the same for all the departments. No matter how much technology is enough for someone to teach and check a person's progress, there will be always an extra hand for a learner to move on.

II. ARTIFICIAL INTELLIGENCE IN THE ENGLISH LANGUAGE

A. Artificial Intelligence in English Language Teaching

1. Back in History

English Language Teaching (ELT) has many approaches and methods in its historical background. To begin with the Grammar Translation Method, around the 18th and 19th centuries, a popular way of teaching in which L2 is built up, learners could use L1 tolerably in class. Grammar is taught deductively, vocabulary is memorized, and reading and writing are the focus during teaching. Although it is not completely accepted as a useful way of teaching, GTM is still taught today. The way language teaching methods evolved was mostly becoming against it or finding weak parts to create an opposite-strong version. Thus, when GTM was considered to have drawbacks, the Direct Method, or Natural Method, which came out in the 1900s in Germany and France, came out. It is a way of teaching which aims for learners to speak the target language, they do not use L1 or translate, L2 is built up within the experience and using the only target language. Using L1 is almost banned, all of the main focus is on L2. Learners learn how to communicate in L2. Just like learning the mother tongue, L2 is expected to be learned naturally. However, this method also brought some drawbacks. Limitations for both sides, the capability of the teacher and context building of the learner might not be enough to teach in that met, Later on, the Audio Lingual Method came out. The Audio-Lingual Method or Army Method is a way of teaching that came out early in the 1950s in the army. Coming from its name, drills, repetitions, intonations, pronunciations, and memorizations are the basic keywords for that teaching. The Structural Approach is the most detailed way of teaching which emphasize analyzing the language and grammar structure, and its structural order rather than what they mean. It is a way of analyzing the language in detail. It is a traditional way of teaching and skills are the main focus of this approach. Total Physical Response (TPR) brought out by Asher, is based on

children's way of learning L1, and this way of teaching focuses on physical engagement while learning the language. It is all about the verbal input, in which all teacher gives easy and short phrases or commands and integrates the action with miming, role-playing, or showing bodily. The main focus of Communicative Language Teaching (CLT) is communication rather than linguistics. To produce the language, students are involved actively in class. To use the language properly and to understand how to use it mostly real-life activities are used.

Lastly, some of the teaching methods that are still in use today are Project-Based Language Teaching (PBLT), and Task-Based Language Teaching (TBLT), In PBLT, students are required to design a project based on real-life actions so that students can use L2 meaningfully. TBLT, similar to PBLT, requires performing a task using L2, these tasks should be meaningful so that students can use L2 while achieving these tasks. It has three stages before setting the task while doing the task and lastly focusing on the language use.

2. ELT Today

Teaching English has evolved a lot. Besides these teaching methods, teaching English can be divided into two eras, before and after the coronavirus pandemic. Education, until the pandemic breakout, was done in class which was integrated with technology. Projectors, educational tabs, laptops, computers, and listening CDs, books with key codes in which students can join interactive activities and see their ebooks when they join with a class code, have been and still are all used for teaching English in class. Since English has receptive skills, Reading and Listening, and productive skills, Writing and Speaking, as well as Grammar and Vocabulary, English language teaching cannot be separated from one another. However, they may have a focus and subparts in lesson planning. These skills have been taught integrated and books or booklets have been prepared accordingly such as Reading & Writing, Listening & Speaking books, New Language Leader (Pearson), Advanced Skills (Cambridge), Q Skills for Success (Oxford), and self-study materials prepared by the level coordinators or material and testing office at universities.

Preparatory schools are the key places for universities. Every student from every department, whose department requires fully English or partly English teaching, takes the proficiency exam at the beginning of the term when they pass the

university exam. According to their proficiency level, those who pass, start their department. Those who fail the first proficiency exam, start a preparatory class for a year but they still have a chance to take the proficiency exam in the first term of the year. They need to be at least B2 to take the proficiency exam. Those who start from the A1 level, continue their education until the end of the year to take the proficiency exam. Students are placed based on their Placement and Proficiency exam results. They learn General English, Academic English, and sometimes English for Specific Purposes (ESP) in which students learn terminology based on their departments such as Medicine, Civil Engineering, Civil Aviation, etc. Thus, universities' preparatory classes are quite important for students to survive in their department if students do not have enough English. Every university has its own way of teaching method and name. Some of them are called Foreign Language Schools (SFL), Foreign Language Department (FLD), or Preliminary Academic Course of English (PACE), all serve the same purpose, to place students based on their levels, and prepare them for their upper-level or advanced level of English so students get a chance to take the Proficiency Exam that happens several times a year. Depending on the department, when students pass with a score of 60 or 80 on the exam, they have a chance to start their department. To sum up, preparatory schools are to teach English and take students from A1 level or starter/beginner level to B2/C2 or Upper-Intermediate/Advanced level until the Proficiency Exam. Some preparatory classes work with different publishings to teach English such as Oxford, Macmillan, Black Swan, Pearson, and Cambridge in Turkey. Some of these publishings are integrated with online platforms in which students can find digital ebooks, and have AI-integrated platforms such as interactive games, activities, quizzes, etc. In that way, students have had a familiarity with AI and online platforms. Although some universities prepare their resource or teaching materials, they still prefer to use these AI-integrated platforms in class or as self-study material for their students.

Unfortunately, when coronavirus broke out, teachers and students were forced to find solutions and adapt to the existed situation quickly and take action. It was not an easy time for everyone. Many problems occurred such as trying to figure out the situation, having mental breakdowns or burnouts at peak, losing motivation, etc. Everyone was forced to use online platforms, and people had problems separating what is formal and what is not work time and personal time were ambiguous and a

lot of webinars were popping out everywhere. Meetings, lesson plans, resources, and exams were all taken to online platforms. Adaptation as well as time management arose in the first period of the lockdown or working remotely. Just like other fields, jobs, and organizations, teaching faced the same problems. Some teachers had to work more than 24 hours. Some teachers had to do more than several tasks. They had to tolerate the situation. It had been such a long, tiring, and epic period of time for the last two years. English Teaching could not be separated from these drawbacks. English teaching needs fully focused, digitally literate teachers. During the pandemic or lockdown, it was not quite possible as the teachers' jobs have doubled, maybe tripled, and students with less or no motivation arose because many of them refused to open their cameras and microphones. Teachers couldn't check any pronunciation, needs analysis, or understanding. Furthermore, for receptive and productive skills development, a face-to-face environment in which students need to see the mouth movements were needed. However, because of the masks, it was not possible for a long while.

3. AI and ELT

The system is much adaptable as it can be used also in each skill in English Language Teaching (ELT) such as Grammar, Vocabulary, Listening, Reading, and Writing, teachers or systems even be able to give these skills in an integrated way. Also, to keep updated according to developments in English Language Teaching (ELT), it is a very useful tool to follow up. However, these can still be adapted from psychical to computer-based areas in English language teaching and learning. Although it can be said that learners gain autonomy in language learning using AI, there is still much need for teachers to guide and learners not fully integrated with the AI platforms in class.

AI allows students a personalized learning area when learning a language. It can be useful when there is diversity in class, for students who are slow learners or shy, students can learn at their own pace. Compared to individualized feedback given by their teachers, though teachers give standardized general feedback adapted to each student, AI has no strict deadline. It also increases the motivation of the learner through games, videos, exercises, and supportive materials. Without a real teacher, students can follow up on their improvement and self-check their language learning journey. This leads students to become autonomous learners. The prediction of the

AI algorithm on its data is quite strong. AI has shown its success so far in Vocabulary, Grammar, Writing, and Speaking with well-known applications and resource pools. It allows learners to listen to different accents which does not force the student to stuck teacher's pronunciation. It also improved its translation application in many ways, even today, urban language, slang, and street language can be translated accurately despite its abbreviations. Social media has brought many new vocabularies to English which is quite different from the one taught in class. This informal language can even be translated which does not force students to be stuck only on exam-based study. It helps students speaking skills as naturally as possible. There are several words such as "BAE, POV, SLAY, and SWAG" which are not in the formal or academic language though still added to the English language that students use on their social media accounts when recording a TikTok or Instagram video. It also brought many different phrases, especially on relationship issues such as "gaslighting", and "ghosting". Normally, AI should not be capable of translating the daily language as cultural context or daily/informal is involved. However, AI is also capable of translating these words. Because AI is already capable of teaching formal, Academic English with the terminology, this feature of AI can also be considered a great improvement. It is just like the way Siri or Alexa chats with a human being rather than replies to basic commands.

Teaching terminology in ELT, however, might not be as easy as teaching A2 level vocabulary and grammar teaching as the meaning changes based on abbreviations or phrases. ESP, as well as ELT, is important for preparatory school students. However, not all the universities offer all the departments ESP during the preparatory class. Medicine, Aviation, and Engineering departments may be the ones that may have ESP classes before students start their department. ESP may be challenging if students' English level is not proficient enough. Learning English as well as terminology at the same time, when it is already difficult to learn even in their native language, may cause students to be demoralized, run away from ESP classes, or not prefer to pay attention at all. AI, in that way, can be useful or effective with an interesting or enjoyable platform for students to back up their English as well as their terminology for their departments.

B. Artificial Intelligence in English Language Learning

1. AI in Language Learning

AI enables a learner to learn freely at any age with a minimum struggle compared to going abroad and trying to communicate with no translator or with a only hand dictionary for a summer holiday, Work and Travel, AISEC, etc. Artificial Intelligence in language learning is quite helpful. One can learn a language without going to a course, searching for the best, buying books, or knowing where to begin. With the options from 3 minutes to 30 minutes of regular practice, one can learn a language at home, at work, and even at the cinema.

How effective AI is for any learner who learns a language voluntarily or for self-reasons with intrinsic motivation was given above. However, in education, language learning can be quite challenging for learners if there is not enough motivation or there is an outer force that does not overlap with learning English as the main goal such as trying to pass preparatory school because of the fear of parents or paying more attention to attendance in case of not to be marked as absent rather than learning and so and so forth. Thus motivation becomes the main issue in language learning. Students mostly are not aware of the reason why they learn or should learn a foreign language, especially when they are stuck in preparatory classes in a country where English is not the native language.

2. Computer-Assisted Language Learning (CALL)

Computer-Assisted Language Learning (CALL), which originates back in the 1960s, is a way of teaching that has been quite common recently. Just like its name, CALL is computer-assisted language teaching. It is based on computer-based resources and materials that give learners digital backup. Unless it is used as self-learning, the main goal of CALL is to backup or assist learners with their face-to-face or in-class education not taking over the educational system like AI.

There is a lot of software where AI is used to prepare a standardized exercise, exam, or lesson. There are a lot of materials that help language teaching be more interactive via videos and games. CALL makes it possible since they are all computer-related. From internet websites to CDs, and USBs, though nowadays they are all moved to Cloud accounts, a computer helps or backups that teaching with

assisting. The learner is the center of the learning according to CALL. Whatever is given to students is quite comprehensive when teaching a language. It has no one way of teaching, it is adaptable and can be used in many ways. Not only learners and computers are engaging but it also engages the learners among themselves.

CALL has three parts, Behavioristic, Integrative, and Communicative. Firstly, in the 1960s and 70s, Behavioristic is a way CALL which focuses more on what learners do with each other. Grammar is taught, drilling and practicing, or with its phrase “drill and kill” by Programmed Logic for Automated Teaching (PLATO), is important since machines cannot feel tired or bored while repeating things in language teaching. (Taylor, 1980) Materials are served by the machines and they were considered tutors.

The next step came up with Communicative. How to use forms became more important rather than the forms themselves. implicitly taught, there is no good or bad win or loose reaction based on that. Teaching is quite flexible and focuses on conversations and communication. L2 is focused and taught more naturally through conversations.

In the late 90s and early 20s, using multimedia such as CDs, diskettes, powerpoints, visuals, audios, cassettes, and then the internet with wonderful websites, and sending E-mails, was so popular that even in language teaching it was quite innovative and effective. So before the Integrative CALL came out, the evolution of CALL was just like that. Integrative CALL is the most up-to-date one compared to the other two. In fact, it has more relationship with technology in teaching. Teachers teach the real language which is meaningful and useful, show grammar is not direct. It left a communicative way to socio-cognitive view.

On the other hand, Claypole (2020) defines the role of CALL in computers in five as an electronic display unit, monitoring, individual resource, group activity, and direct stimulus. In the first one, CALL as a display unit, the teacher uses technology as an assistant, a helper for the homework. This one is quite similar to what can be seen in smartboards rather than projectors in class to show how technology is involved in teaching. The next one, monitoring, through linking to the network that belongs to schools, is a good way to track students’ improvements. Another one, as an individual resource, as from the title, is a good way for an individual learner. The fourth one, group activity, using a computer in class or online can be quite enjoyable

teaching through games, or group works. Lastly, with the teacher's guidance or a group leader in-class activities, the computer can be used for the activities mostly at an advanced level. (p. 28-30)

The way teachers teach language has even more evolved recently. The way teachers use supplementary materials, and coursebooks, especially for skills forced teachers to carry CD or cassette players, audiotape, and laptops to play listening audio of the coursebook. Now everything is quite integrated into teaching thanks to computers. After all, the pandemic forced everyone to use computers, it has been quite helpful. Teachers learned how to teach from different platforms, they created, uploaded, found, or generated materials for their students, they invigilated exams and they graded papers.

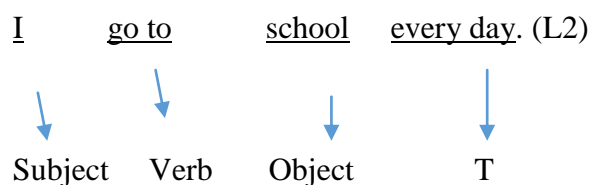
3. Difficulties of Learning a Language

Any learner who learns a new language may not know where to begin. Learners may start with a course, or compulsorily learn a new language based on their departments. On one hand, learning a new language is considered partly a talent. On the other hand, it needs regular study to practice if the learner especially the learner is not in a native country. To practice, some prefer to go abroad to practice with native speakers. Those who cannot go or has education in their country, still have many options such as using an application, going to a course, or going to prep. classes. Those who are willing to learn a new language with high motivation can back up themselves by practicing in those ways given above. Learning a new language has many ways such as speaking, grammar, vocabulary, or an exam-based study. If a learner needs to practice speaking, the option can be using an app such as Cambly, Duolingo, or a speaking-based course. If a learner is preparing for an exam such as IELTS, TOEFL, YDS, YÖKDİL, or any kind of proficiency exam, they either can go to a course or use a backup application from any mobile store.

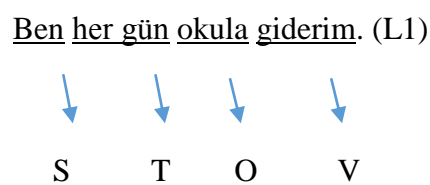
However, in preparatory classes, students mostly struggle with motivation. The main issue to catch students' motivation is quite challenging for both teachers and learners in the classroom. Students might be shy to join class activities or presentations, careless about how important or useful a learning language can be for them, or lazy to practice regularly. Giving daily practice through grading can be an extrinsic motivation for those who struggle with learning a new language. For

teachers, following students' improvements from formative or summative assessments can be quite useful to see the needs analysis.

The first challenge to learn a new language for the A1 level learner can be the grammatical differences between their native language (L1) and the language they learn (L2). Learners either try to go with translation or thinking in L1 when they try to speak or answer a question. This may lead to grammar errors or word-formation issues. For example



For a Turkish learner, the grammatical structure is quite different. In Turkish grammar, Verb (V) comes the last in Simple Present Tense,



In that case, when a learner thinks in the L1 language (Turkish) the order might be confusing even for a very basic sentence. In complex sentences, using grammar in different periods, Subject-Verb agreement, word formation, and gerund-infinitive issues can be quite challenging. In many schools, grammar is not given directly. However, students when they see the structure in different examples may find it difficult to understand the reason why the structure or tense is used like that.

Motivation is another important aspect of learning a new language. If any learner does not have intrinsic motivation which gives inside motivation for anyone to do something and does not need any outer force or to is pushed to move forward or to complete a task such as you find it enjoyable or relaxing or useful, or extrinsic motivation which relates to an outer goal to complete the task such as so that you can pass the exam, you can earn money from it, it becomes challenging for teachers to push learners in the classroom to teach a language the learner is new.

The third issue about learning a new language is that every learner has more than one intelligence. Garder's Multiple Intelligence (MI) theory (1983) is based on

9 intelligence and every human being may have more than one intelligence based on their learning ability. visual, kinesthetic, verbal, natural, intrapersonal, interpersonal, logical, spatial, or musical.

Second language acquisition (SLA) theory claims that to acquire a second language, one must establish their L1 language. Krashen & Terrell (1983) classified five stages of Second Language Acquisition as Preproduction, Early Production, Speech Emergence, Intermediate Fluency, and Advanced Fluency. How AI can recognize these problems and give further feedback about them?

4. Advantages and Disadvantages of using AI in class

Using artificial intelligence comes with advantages and disadvantages. The main advantage as mentioned under each title is that AI saves time, and is reliable. However, many teachers and students are not fully adapted themselves to AI itself. Although from preparing curriculum, to assessment, AI is a great relief for teachers, there are still debates going on for each side to fully rely on. AI is still developing day by day, even second by second.

The advantages of using an AI platform in an online class from the teachers' perspective can be many. It is to verify the task, check the result of it, and not get lost while preparing a resource. To give an example, using Grammarly outside the class is a great treasure for teachers. However, using Grammarly can be useful for learners but checking the reliability of an essay after the exam can be quite misleading for the teacher if a student knows how to use Grammarly such as the extension of the Word version, etc. For some students, this can be beneficial for getting feedback but it does not give 100% accurate feedback to the learner. Yet it is still beneficial for the learner for autonomous learning. Another example can be given from Google Translate if the learner has a good, or enough, command of the target language, they can use an application without any problems by checking whether it is error-free when using translation. Thus they may see the correct accuracy of the platform and use it for academic purposes. However, students may use these applications for cheating rather than learning.

Using an AI platform in the face-to-face class is quite effective, engaging, and interactive for both sides. It allows students to use their mobile phones rather than hanging on social media during the lesson. It is entertaining and engaging

because students can use their phones through codes, or cameras to find the information, and write their opinions anonymously.

5. Some useful applications

To begin with, Grammarly is the most known website which has a plug-in to Microsoft Office Word and Google Chrome extension. It has many features. It can be both used free or premium. In its free version, it allows users to check the grammar and spelling errors, recommends the best options, and checks punctuation. In the premium version, there is a feature called advanced check for word choice, clarification, plagiarism, getting expert help, tone adjustments, formality level, fluency, etc. As it can be used online and extension, wherever the user starts typing Grammarly activates itself and starts checking automatically. Of course, it is still improving but though it gives accurate grammar and punctuation corrections, it sometimes misses the information or for academic or formal language, it may not be suitable enough to use. To sum up, the disadvantage of Grammarly is that premium versions have limited and basic features.

Compared to Cambly, Duolingo or Memrise-type apps are much more helpful for those who are shy to speak with a real human, they give instant feedback based on grammatical and pronunciation errors. The accuracy level for the pronunciation may not be as perfect as ELSA, however, it has short videos for the learners with real native speakers saying the sentences to see the real pronunciation with a natural talking pace. It saves the user's data and reminds them to study according to the user's availability. Both of the applications have instant feedback and even though users give correct answers, or pronunciation after a long period applications give similar exercises to strengthen the previous information.

ELSA Speak is an AI-powered English learning website on speaking that has mobile application forms both on Google and Apple Stores. It is helpful to empower speaking in English, especially in pronunciation. Compared to other applications, this one has instant feedback on pronunciation and fluency. It is an adaptable and AI-held system. The way it works is based on speech recognition. It can be used with teachers in class and individually for learners. Its AI system also shows the phonetics alphabet as well as how to pronounce things and on its immediate feedback page, the word can be seen colorfully and gives a reliable percentage of speaking. It has many

topics and levels based on the learners' speaking. It can also remind learners when to study regularly.

III. PERCEPTIONS IN ARTIFICIAL INTELLIGENCE

A. Purpose

The research is to answer these research questions:

1. In what ways AI integrated platforms/applications can be used for English Language learning according to the perspectives of students?
2. Can developments in AI be effective in English Language learning?
3. What is the perception of English language learners towards the use of Artificial Intelligence in the language classroom?
4. What are the needs that are important for English teaching according to AI-based applications/platforms?
5. Can assessment be valid and reliable when using AI-based platforms?

The first question was to see the perception of learners towards AI as language learning can be easily evolved into AI platforms. In general, it may still not be so useful for some groups, especially in language teaching, the rest has already started to use the AI-adapted systems. The second question was to check the effectiveness of the usage of AI in the classroom whether online, face-to-face, or for self-study. Especially in class, whether the student is shy to speak in front of their classmates, or to be checked or assessed by a human being, the effectiveness of using AI was questioned in the second question. The third question was asked to understand the needs of the language learners as testing, lesson planning, and giving feedback can be done online with an AI. If so, how effective these needs of the learners are fulfilled by an AI system compared to a human teacher? Relatedly, question four was to see which of the AI-based applications and websites can be used and in what ways these can be used by both teachers and learners. For the self-study, what are these applications for a language learner were listed. Though to err is to human, how valid or reliable to use an AI during exams and later on for the assessments was asked in the fifth question. Even teachers may grade papers

subjectively, especially for open-ended questions or for writing exams, it was asked how an AI system can assess exams successfully or objectively.

Language learning is quite challenging either way learners are capable of language learning or quite new to it. Sometimes learning a language in class is not enough as it needs regular practicing, especially if the learner is not in a native-speaking country. To practice daily, they need not only guidance from a teacher but also a peer-learning from other learners. They need feedback to know what are their weaknesses and how can improve themselves. For language learners, it might not be clear enough to understand what is an AI and how useful can it be for a learner. A learner's weakness might be in vocabulary, grammar, speaking, pronunciation and so and so forth. AI can prepare a lesson based on these weaknesses and remind the learner of daily, weekly, or regular studying options. Compared to a real class it is a great opportunity for the learner to fulfill their weaknesses.

Firstly, for language teachers or instructors, the main advantage of using AI, if reliable, is time-saving. Teachers, based on their students' needs, do not need to spend much time preparing resources. In its database, AI can prepare a lesson plan, an exercise, or even side materials such as video, audio, dialog, and a game quickly. Another reason why AI can be useful for language teachers is for exam issues. From preparing, invigilating, and assessing, AI can be as effective as a real teacher. Besides, AI can assess quicker and give feedback individually. Another issue about testing is that invigilation can be a stressful issue for both sides. Preventing cheating during an exam can be a painful issue. LockDown Browser is a very helpful application that can be known for preventing cheating at a higher rate compared to basic LMS platforms. It takes random pictures of the test-taker during the exam without notice, and it does not allow the test-taker to move among tabs, For writing, Safe Assign, Turnitin, and Plagiarism checking applications can be useful if students took the writing from another website. However, these are not trustworthy enough if a student wrote the essay from Google Translate or with a friend. However, if teachers know their student's proficiency level, they might know whether the student cheated or not. Just like the real teachers, it can be questioned among teachers if AI can be as aware as them if or when a student cheats and how to grade the paper.

B. Instruments

In this thesis, mixed research was done. A survey that includes 40 statements based on the perception of AI was given to preparatory school students. 10 questions dialog were done with 10 English Instructors in preparatory classes.

In this survey, gender, age, occupation, and years of learning a foreign language were not asked. Therefore, the perception levels of the students were analyzed based on the item analysis previously tested and used by Mukhallafi (2020). The subfactor analysis was done in SPSS.

These questions are used in the interview with the 10 English Lecturers:

1. *Do you find it difficult to use AI-based/integrated platforms?*
2. *Can AI be effective in teaching English?*
3. *What is your opinion about using AI in English Language Teaching?*
4. *Do you think that AI-based assessed exams are going to be reliable and valid?*
5. *Do you think that assessments are going to be objective compared to the teacher's assessments?*
6. *In what ways AI is going to be useful in your classroom?*
7. *Do you think that students/learners find it difficult when they use AI-based learning platforms/applications?*
8. *Do you find AI useful?*
9. *In what ways do you find AI useful in language teaching?*
10. *Do you think that AI-based language teaching going to take over the teacher's job in the future?*

Besides learners' perspectives on this subject, it is very valuable to see the lecturers who teach ELT in universities. It is also important that almost every teacher, with the pandemic and the developed technology, started to adapt themselves to the digital World. So, it would be very useful to see their perspectives towards AI such as negative which include concerns, the difficulty level of use, errors in the apps or platforms, the reliability of AI in assessment and evaluation, and

positive which include staying up-to-date, following up the latest developments in ELT, easiness to find or create materials, time-saving applications, etc.

C. Participants

Around 100 students at university preparatory school were given a survey with 40 statements. Preparatory school students were randomly chosen from Bahçeşehir University, İstanbul Aydın University, and Okan University. The questionnaire did not include gender or the year of learning English as the main purpose of this study was to see the perception of the students and teachers. Around 70 students participated from Bahçeşehir University. The questionnaire was given to students at the end of a lesson from Google Docs. Students were randomly selected from Bahçeşehir University, Okan University and İstanbul Aydın University. As they were all preparatory school students, and gender was not the main research of the research, demographical questions were not asked such as name, gender, level of proficiency, how many years they know English, etc. The main purpose was to see the perception of the preparatory school students and English Lecturers. Because of that reason, students only answered the 40 questions survey. The level of the perception of the preparatory school students was calculated based on the scale.

Ten open-ended questions were asked to randomly select 10 lecturers who teach at preparatory schools from three different Universities. The participants' list was given below:

- Participant 1 is a 37-year-old male, working at a foundation university
- Participant 2 is a 38-year-old male, working at a public university
- Participant 3 is a 37 years-old female, working at a foundation university
- Participant 4 is a 27 years-old-female, working at a foundation university
- Participant 5 is a 30 years-old female, working at a foundation university
- Participant 6 is a 28 years old female, working at a foundation university
- Participant 7 is a 28 years old female, working at a foundation university
- Participant 8 is a 30 years old female, working at a foundation university
- Participant 9 is a 27 years old female, working at a foundation university

- Participant 10 is a 28 years old male, working at a foundation university

The questions were asked individually to each teacher at different times on Zoom and Microsoft Teams apps. However, three of ten teachers were interviewed face to face due to time limitations and availability. The dialogs were recorded from MS Teams, Zoom, and a mobile phone voice recorder. The permission to record the sessions was taken from 10 Lecturers before the recording. During the session, names were kept confidential. However, their genders and age were noted down. 10 interview questions were to see the perception of the University lecturers. Though gender was not the main purpose to see the difference, there were three male and seven female lecturers. Experience in teaching was also asked teachers based on their familiarity with online, face-to-face, and hybrid teaching. All of the teachers had experience with technology, online and hybrid education because of the coronavirus pandemic. This led the interviewees to see the difficulty level of using AI and the way they apply AI in their classes. This was to acknowledge their experience with digital tools, websites, and applications if they use any. Teachers will be able to answer the advantages, the disadvantages, and whether they find these tools easy to use or not. The last part was to see if in the future teachers will be replaced by AI and if so, how effective will it be based on their perception. These questions were answered based on their idea and experience together. The duration of each process took around 30 to 40 minutes. Some key codes based prepared beforehand for the interview and keywords were to be found based on teachers' answers during the sessions.

D. Methods

1. Perceptions of English Language Teachers

The interview was done with 10 English Instructors/Lecturers who teach English in Preparatory Schools in both Foundations and Public Universities. The interviews were conducted on an online platform. After the permissions were taken the answers were analyzed accordingly.

Interview questions are asked to see the following:

- the familiarity level of the teachers and in what ways these AI-integrated applications are helpful to them if they had any difficulty, (1,8)

- how they adapted AI effectively into their classroom (2,9),
- whether their students find it difficult (7),
- how teachers handle that situation(3,6),
- their general opinion about the assessment for the reliability(4) and objectivity(5) aspects,
- in the distant or near future, to discuss the possibility of whether they are going to be colleagues with an AI or not (10).

The general information about the participants is given below in Table 1.

Table 1. General information about the participants

Gender		Age	
F	M	25-30	31-40
7	3	7	3
Total			10

Teachers were individually scheduled based on their availability and from Zoom, MS Teams, and face-to-face, with voice recording, interviews were done.

Codes were divided into categories and relatedly subcategories as this qualitative data was analyzed as a thematic analysis

A. Opinion on AI

A.1. Familiarity (used before, heard before)

A.2. Thoughts (supportive, open to use, or against it)

B. Usefulness of AI

B.1. Usefulness (useful, time-saving, burden-taker)

B.2. Practicality (adaptable, testable, training)

C. AI in Learning

C.1. Difficulty (familiarity, alienation, guidance)

C.2. Motivation (intrinsic, extrinsic, autonomous learning)

D. AI in Language Teaching

D.1. Applications (Grammarly, Quizlet, Turnitin,)

D.2. Effectiveness (effective, appliance in class, appliance in teaching)

E. AI in Assessment

E.1. Validity (reliability, validity)

E.2. Objectivity (objectivity level)

2. Perceptions of English Language Learners

Mukhallafi (2020) separated 40 statements into 4 parts (p.45, 2020). He analyzed the subfactors of the tool given in Table 2. below,

Table.2 The description of the content of the tool Muhallafi created 4 subfactors and divided these 40 statements into four subfactors.

No.	Field of the Questionnaire	Description	No of Items
1	Understanding AI strategies and applications for teaching/learning English	Sample's awareness of AI, its concepts, components, and applications. In addition, they should know about its strategies for teaching/learning English as far as program design, teaching strategies, and evaluation methods are concerned.	8
2	The effectiveness of AI applications in teaching/learning the English language	Sample's vision of the importance and effect of using AI applications on developing the processes and activities of learning English and enhancing the language skills (listening, speaking, reading, and writing)	10
3	Actual use of AI applications for teaching/learning English	Assessment of the levels of using AI applications for teaching/learning English from the sample's point of view	12
4	Needs for and methods of using AI applications for teaching/learning English	Studying the needs, requirements, methods, and rules of using AI applications for teaching/learning English from the sample's point of view	10
Total			40

In his article, Mukhallafi divided a Likert-scale item analysis based on their availability on SPSS below

In the article Mukhallafi (2020) analyzed the subfactors according to the

questions below:

- *What are suitable strategies and methods for employing AI for teaching/learning English from the university students' perspective? (1-8)*
- *How effective is the employment of AI for developing the processes and outcomes of teaching/learning English from the university students' perspective? (9-18)*
- *To what extent is the employment of AI viable for teaching/learning English from the university students' perspective? (19-30)*
- *What are the needs and requirements necessary for using AI in teaching/learning English from the university student's point of view? (31-40) (p.46-49),*

Based on his subfactor analysis, a similar scale will be used to find the perception level of students and lecturers. These questions were adapted into Mukhallafi's questions as

In Table 3., these subfactors were adapted into the equivalence of Mukhallafi's subfactors given below,

Table 3. Adapted research questions based on the field of the questionnaire

In what ways AI integrated platforms/applications can be used for English Language learning according to the perspectives of students?	What are suitable strategies and methods for employing AI for teaching/learning English from the university students' perspective? (1-8)
Can developments in AI be effective in English Language learning?	How effective is the employment of AI for developing the processes and outcomes of teaching/learning English from the university students' perspective? (9-18)
What is the perception of English language learners towards the use of Artificial Intelligence in the language classroom?	To what extent is the employment of AI viable for teaching/learning English from the university students' perspective? (19-30)
What are the needs that are important for English teaching according to AI-based applications/platforms?	What are the needs and requirements necessary for using AI in teaching/learning English from the university student's point of view? (31-40)
Total	40

These adapted research questions are to see the students' perspectives based on AI's effectiveness, appliance, difficulty, usefulness, methods, and developments. Therefore, students' general understanding of AI is analyzed based on Mukhallafi's

questionnaire.

E. Findings

1. Perception of Language Teachers

In this study, the qualitative part was done with 10 teachers who were three male and seven female teachers at a preparatory class from different universities. The first question begins with the difficulty level of using AI. All of the teachers are all using AI in class or daily life. Therefore they were not asked if they know “what is an AI” or “if they have ever used it before”. Beforehand the interview, codes were divided into categories and relatedly subcategories as this qualitative data was analyzed as a thematic analysis

A. Opinion on AI

A.1. Familiarity

A.2. Thoughts

B. Usefulness of AI

B.1. Usefulness

B.2. Practicality

C. AI in Learning

C.1. Difficulty

C.2. Motivation

D. AI in Language Teaching

D.1. Applications

D.2. Effectiveness

E. AI in Assessment

E.1. Validity

E.2. Objectivity

The listed coding of the qualitative data and the relationship with the questions are given below in Table 4. Participants answered 10 given questions.

Table 4. Coding of the Qualitative Data

Opinion on AI	<i>Do you find it difficult to use AI-based/integrated platforms? (1)</i>
A.1. Familiarity	
A.2. Thoughts	<i>Do you think that AI-based language teaching going to take over the teacher's job in the future? (10)</i>
Usefulness of AI	<i>In what ways AI is going to be useful in your classroom? (6)</i>
B.1. Usefulness	
B.2. Practicality	<i>Do you find AI useful? (8)</i>
AI in Learning	<i>Do you think that students/learners find it difficult when they use AI-based learning platforms/applications? (7)</i>
C.1. Difficulty	
C.2. Motivation	
AI in Language Teaching	<i>Can AI be effective in teaching English? (2)</i>
D.1. Applications	<i>What is your opinion about using AI in English Language Teaching? (3)</i>
D.2. Effectiveness	<i>In what ways do you find AI useful in language teaching? (9)</i>
AI in Assessment	<i>Do you think that AI-based assessed exams are going to be reliable and valid? (4)</i>
E.1. Validity	
E.2. Objectivity	<i>Do you think that assessments are going to be objective compared to the teacher's assessments? (5)</i>

The first group of questions, questions one and 10, is about seeing the familiarity of the teachers and their general ideas about the difficulty level of AI. As all of the participants have already had familiarity with using AI, they did not find it difficult.

- Participant 1 spoke generally about AI rather than personal familiarity experience. Based on the answer, it has been pointed out that although nowadays it has been already used by many people, it has still more time to be used easily.

*“Actually nowadays we **start to use** every kind of technological platform, (A.1.) so I think we are going to be more able to discover them in the future. So it's not going to be a problem for humans at all. So right now it seems very **complicated**. Maybe for some reasons, but in the future, I also believe that for example, in high schools we will have IT lessons and we are going to be told like AI lessons, how to use it, how to manage it, or how to make the functions of that system. So it's going to be OK for everybody in the future. (A.2.) I mean, there will be no difficulties.”*

For the last question, the participant thinks that it may not be quite possible in the near future to be taken over.

“Umm, it can actually. For example, I am by myself. I'm thinking about

*myself because I know that I have that autonomy system to learn actively. I can learn it from books or videos, and we know that there are two kinds of students. Learners, so, one of them is a passive learner who needs a teacher at all. They cannot learn without a teacher, and on the other hand, we have the second option which is active learners, the autonomous learners, and they don't need scaffolding. They don't need anyone. They can learn by themselves. So **it's going to be useful for that active learners**. And for example, I imagine myself. Living in the future and I know myself, I would prefer artificial intelligence because it's saving time again because I trust myself that I actively learn it. I want to learn it because I. I have that aim and goal for myself. So it's going to be depending on these two kinds of students. Not everybody, **not everybody is going to prefer it** The system is going to be able to teach, the system is going to do, and if everybody is going to be an active learner then there is no need for the teachers. But about humans, there will be passive learners and active learners so. Half of them are going to choose it, I think. I am excited. I'm not worried about that. I'm, I'm excited. Actually. I'm tired of teaching. No, I'm just kidding. I love teaching, but I know that as I mentioned in the previous question, some choose someone to be taught. That they are the passive ones. So for example, we have lazy students that need someone to show them the way. So I'm not afraid of that. But I am I. I'm also having that hope for the future because we need to change. Nothing is always a. Like remaining itself. So I like changes and I also think that the teachers are going to find themselves improving when we have artificial intelligence, maybe we are going to **involve in some kind of other career** as well. So there's no need to be afraid of technology. I'm supporting technology. (A.2.)”*

- Participant 2 pointed out as it has never been difficult to use AI since it has already been used in every part of the class.

*“No, **I don't think so**. (A.2.) **I have always been very good** at online applications, smartboard materials, and AI-used materials. (A.1)”*

For question 10, the participant noted that teachers' jobs may not be taken over. However, the need for language learning will not be necessary for the future.

*“Well, it depends on the situation, if, of course, **we still need language education** at the moment but in the future, it can change. I mean, translation programs are improving daily, so, at some point, **students may not need to actually***

learn a language instead they just can use a device to have simultaneous translations. (A.2.) So the question is; will, if AI gets better, and it will, will AI take over teaching jobs or will it take over the need to learn a new language?"

- Participant 3 said that it is not difficult and AI-integrated applications have already been used in the classroom.

*"...Actually, I don't find it difficult to use AI-based or AI-integrated platforms because I am **used to using technology** and technological devices in my daily life (A.1.). Uhm, for example, I use Grammarly for my texts. Also, I use the criterion again to check my grammar mistakes. Also, Google Docs has similar features. So, actually, AI-integrated platforms **make our lives easier**. (A.2) That's why I prefer to use them. And I think it is not difficult. We can learn them easily by exploiting the devices or the platforms."*

For the last question, the participant thinks that teachers are not going to be taken over in the near future. It is because there will be always a need for teachers. After all, they are guiding students.

*"Uh, I don't think that uh teachers, sorry, AI-based language teaching is going to take over the teacher's job. **I don't think that it is true** because. as a teacher, I think that we need AI-based language teaching. Of course. Uh. As I had said, it is very **practical** and it's for some students it is like a game. Some of the platforms are like, sorry, includes games for example it is enjoyable. Uh. Time-saving. Practical, easy to use but. And **without the teachers? No**, I think they are **not effective enough** because the teachers' role is to facilitate. I'm sorry the teachers' role is to be facilitators and. Teachers should channel the students to these platforms. Should teachers should **guide the students** and **encourage the students** to use these platforms and then. In the classroom or out of the classroom, it is. Students can use these platforms, of course. For example, we can give a task as the teacher the students a writing task, and the student writes the task and check their mistakes on Grammarly, and the students can bring the paper to the teacher handing the paper to the teacher. And it is beneficial I think. Why? Because... the students learn how to check their own mistakes or students are aware of their own mistakes. It is valuable lighting. So AI is helpful in that case. Uh. I mean, after the use of AI, uh teacher feedback is needed, I think so. **Without human scoring without teachers,***

AI-based language teaching will not be effective. It's my opinion, but we will see in the future, of course, what is going to happen. We don't know what is going to happen. (A.2.)”

- Participant 4 has familiarity with AI. However, the participant pointed out that unless there is the guidance it is not quite easy to use an AI platform.

*“Actually, it's kind of **easy** for me to use such platforms in my lessons although technology is **complicated** for me when I see the **guidelines** I can comprehend the understanding the way I can. (A.1.) If it is like Grammarly or Kahoot? Hmm. No, it's actually easy. So when someone showed me those kinds of platforms I can use them easily. (A.2.)”*

For the last question, the participant denies the possibility of the teaching jobs being taken over by AI because humans have emotions, AI may not have that feature which may lead automation to lose the emotions in teaching.

*“Actually, I don't think so because **learners need to see the human expression of emotion**. AI cannot provide these for now. Maybe 100 years ago, 200 years ago, it changed the situation, but for now, I don't think so. So **teachers will continue to do their job** instead of robots or AI.”*

- Participant 5 said that it is not difficult to use AI because of familiarity.

*“I don't find it difficult because I'm kinda used to using technology in the classroom. But I think that's because of the **familiarity**. (A.1.) That's all. I mean, if I have never used it, I would probably say it's very difficult. Because the **logic takes time to understand**. (A.2.)”*

For the last question, the participant said that the way of English teaching may evolve into something else in the future. Yet again, humans have emotions, which may force AI to evolve in collaboration with teachers in language teaching.

*“I think yes, but... Not in every way, I mean. **There will still be teaching**, but not the way we teach right now. There will be like... Uhm, special skills teaching that requires emotional attention. But. The mechanics I think will be in AI mostly. (A.2.)”*

- Participant 6 pointed out the familiarity level based on experience in teaching English.

*“No, I don't cause I have always been interested in different kinds of platforms that are used to **contribute to English**. (A.1.) That is why I have lots of **experience** in dealing with different platforms which are AI-based or integrated with AI. (A.2.)”*

For the last question, the participant points out that no matter how successful AI is, there will be always a need for a teacher in the near future because teaching needs feelings to do it successfully.

*“I don't think so. **Being a teacher requires a brain** that is flexible, and likes to connect things. Of course, an AI can be flexible and can have connectivity between ideas, but a teacher has the love of a parent. That is why I do not think it will take over teachers' jobs in the near future. However, it can take over many years later, which I cannot foresee now. AI needs to be trained by the time it acts, feels, and thinks like a human being to take over the job. (A.2.)”*

- Participant 7 said that learning new platforms and adapting them to courses has never been difficult. Therefore, using AI-based platforms and adapting them to the courses is not difficult.

*“No, I don't find it difficult. I feel **very comfortable with technology** in general. (A.1.) So that's really okay for me to learn new websites, and new AI-based integrated platforms, and I really enjoy adapting them to my courses as well. (A.2.)”*

For question 10, the participant completely denies and points out that AI is not a real human. Though it has many positive aspects in language learning it may not give the same exact feeling of a teacher in class without gestures, mimics, eye contact, etc.

*“No, no. I **absolutely disagree** with this like it's **not possible**. It is not a teacher. So, Uhm, yeah it is objective yeah it is not subjective it is **not biased** but it has so many effects on students' learning very positively but it is not a teacher, like, not a human so it **cannot give** the feeling of **motivation, engagement** in the classrooms with full of students, also it cannot give the eye contact, gestures, mimic and everything. It is not a human at all. So, of course, they help but they cannot help as much as teachers do so. (A.2.)”*

- Participant 8 said that it is easy to use AI because of the tasks teachers must do but AI does these tasks on behalf of teachers which points out lifting the burden on teachers and time-saving on duties.

*“No, I find them **easier** to use (A.1) actually because the reason why AI integrated platforms or applications is that Uhm, we don’t want to deal with the Uhm Monday Tasks (given to students from Itslearning) otherwise we will require human to do. (A.2)”*

- Participant 9 gave a short answer that stated the practicality of AI.

*“No. (A.1.) They are **practical**. (A.2.)”*

Lastly, the participant gave an optimistic aspect on AI’s taking over teachers’ jobs.

*“I used to think that AI can take over teachers’ jobs in the future. During the **pandemic**, the education system changed dramatically. It was **a rehearsal of AI-based education**. (A.2.)”*

- Participant 10 said that though it may look difficult for some users it has already started to be used by teachers in class. Therefore, it is not as difficult as it was in the past.

*“It could be difficult years ago. However, English Language Teaching has always been taught with AI integrated or online platforms. Therefore, teachers used to use AI for exams, homework, or activities. Uhm, I personally think that **AI is not quite new to me**. (A.1.) However, using an AI platform in class, especially in an online class, can still be **challenging for students** because they need a **guideline**. (A.2.)”*

For the last part, the participant thinks that AI has already started to take place as an assistant in teaching. However, taking over part may take time, possibly in the future.

*“In some schools, AI has already taken its place in teaching. However, it is **costly** no matter how useful it will be. So, Err, maybe in the future, it will be a common thing to see, but right now it is not possible. Also, if AI is going to take over our jobs, what will language teachers do? I think **there will be always a need for a language teacher** in human form. Not AI. (A.2.)”*

The second group of questions, questions six and eight, is to evaluate applications and the effectiveness of AI and how teachers use or adapt these integrated AI platforms in their classes.

- Participant 1 pointed out how to use AI with a device in the future in the classroom to make lessons useful by giving an example of wearing devices. The participant also said that blending AI with a task-based method can be quite useful in the classroom.

*“For my classroom, I’m actually waiting for the day that I can use for example glasses to travel around the world and speak in English. For example, visiting London or New York, or any place in the United States, or any point in the world. And I am really imagining the lessons like the student is going to wear the mask or the glasses and then we are going to start the procedure and we will be traveling together with the student in London for example. And everything is so real, realistic and we can only use the English language because it’s London there. So it’s going to be so **fantastic**. (B.2) And for example, right now we have task-based learning which is the most effective learning style method that I use in my classroom for myself actually. So artificial intelligence can transform it like task-based learning methods into something very real. So it’s going to be so **beneficial** for students and everybody. It’s going to also help so much about the teachers. (B.1.)”*

For the general opinion about the usefulness of AI, the participant answered the question by pointing out that though AI can learn from itself, there will be always a controlling system by an actual human being behind.

*“ In every job position, it’s so **useful**. (B.1.) I mean, like in engineering, in medicine, in economics, in every part of life, actually. For example, we are using applications and programs that **save time**. (B.2.) So for time-saving, it’s very useful and it’s like a gift. From God’s actually. But it’s the question is how? Who is going to use it in which way? So there’s going to be a control panel for that and somebody is going to control that system. The important point is how fair this unit or these Members are going to work you out. OK, with itself, it’s very fair. It’s very certain and it’s very let’s say balance system because everything if it’s no, it’s zero, if it’s just, it’s one systematically. So for example, it’s like just white or just black. There is no Gray in the middle, so it’s going to be so certain about everything, but also someone*

is going to control that unit or system. The problem is that actually. How are they going to manage the system? Again, there is the human effect. If this is like a never-ending circle, by the way, right now I think about that this is like a never-ending circle, so the humans are designing that, so it's going to be working for the humans but and also the humans are going to control it and. It's not going to be perfect. AI is going to learn because it's going to be how that intelligence how develops itself, of course. And by the way, I read an article about how two computers are playing chess. Among themselves, and after that they started and different language. Two computers we are talking about right now started to develop a language among themselves, which is incredible and very unbelievable. So they are going to have that decision. Unit or decision points, but at the end when you unplug it. It's going to be over, so it depends on humans, I think I mean. Uh, unless they are going to control the people.”

- Participant 2 pointed out as it has never been difficult to use AI since it has already been used in every part of the class.

*“Since new generations are born with technology, especially computer technologies, they like to be in an online environment. So using mobile applications with AI support would be **beneficial** (B.1.), especially, AI can match students’ interests with their skill improvement, especially in English, like, for example, if the student needs or likes to learn about, I don’t know, some engineering topic, **AI can give it** to that student while improving that skill. (B.2.) ”*

On the other hand, for general or personal use, the participant added that using AI will be quite organizing and useful in many fields.

*“Well AI is **useful** in many fields,(B.1.) if we talk about it generally, like you can use AI in Medicine, like, you can use it in Robotics, in medicine to surgeries, etc. And, Uhm, if we get to education, it is also useful, both in educational management systems (EMS) and on the learning side as well. It makes everything more **organized**, I think. (B.2.)”*

- Participant 3 said that using such applications as Grammarly is quite useful for teachers and students in a classroom. It also takes the burden on teachers, especially when checking writing exams.

“Actually I like to use uh. And again, I will say Grammarly I want, I like to

use Grammarly. In my classroom? Uh. Because as an AI platform, first of all, uh, when the students check their mistakes on their own for the first draft. Uh, they? I mean, see that your mistakes on their own and that they try to correct their mistakes on their own so. Well. It increases learning **autonomy**, I think, and digital literacy, of course, because these students should be. A. Digitally literate because we are in the digital era and they should learn how to use these platforms I think. And also it is **beneficial** for the teachers (B.1.), of course, because. I mean, for the first draft, the teacher doesn't do anything. I mean, he or she does, of course. But for the first draft, students do it with their own teachers. Uh. Over will load work is reduced to. (B.2.) We can say that for the second draft, teachers give **feedback**. Of course, I use it like this. Uh, I like to use it like this, so AI helps me, helps the teacher and AI platforms help students as well in terms of learner autonomy, digital literacy, and I mean it's a win-win situation for me I think. But of course, I can't say that AI should do everything. So teacher feedback is needed after. Yeah, the use of an AI platform."

For personal use, the participant pointed out how AI-based applications are useful in daily life, especially for quick actions since AI technology has improved a lot.

"I mean, for example, when I want to, uh, let's talk about Google Translate, for example, Google Translate has been updated and it is very good right now because like translated something into Turkish. Uh, for, I mean, not for my studies, but uh, I mean it's it should have been a quick decision and it was really quick and it was totally accurate. I got shocked because it was perfectly translated and it was **time-saving**. (B.2.) So yes, I think it is very **useful** in my daily life (B.1.) and also but yes, if we talk about it, students, of course, we don't want the students to use Google Translate, but [laughs], if they use Grammarly for example. Uh, yes, it is, I think. Useful and it is also time-saving because you copy and paste yours. Uh writing and then quickly you reach your mistakes and you reach. In the explanation about the language. So I think it is very useful."

- Participant 4 pointed out that AI is useful for in-class activities such as games or visual resources. However, the participant also said not to prefer to use it.

"Ohh, as I said before AI can **support** me in games or provide some visual materials for not the grammar but the vocabulary part. (B.1.) Maybe I can show

some pictures to represent the word meaning or the game. **To check their knowledge** about the target grammar or target vocabulary. (B.2.) But instead of that, I would rather not use it.”

For general use, the participant added that it is quite useful especially, to remind things, or reach out for information.

“Of course they are. AI is highly **beneficial** for me to use because when I need to search for something from my phone or computer or anything else, (B.1.) I can reach it. For instance, if I get an appointment with the doctor, I will use my mobile phone, or if I want to write something instead of writing a paper, I need to use my computer. (B.2.) So AI is becoming our home or our world, let's say.”

- Participant 5 said that the usefulness of AI in the classroom is important for interaction.

“I think the most important part will be the **interaction**, like increasing the interaction and the element of fun (B.2.) like we discussed and. Like in general, just you know their attention, it's an attention-grabbing thing for me, just like watching the video at the beginning of the lesson. It's **helpful** in that way for me. (B.1.)”

Though the idea is terrifying, the participant said that AI is useful.

“In general, yes, the idea is terrifying, but I find that **useful** definitely. (B1.)”

- Participant 6 pointed out that AI is useful, especially for the feedback part in the class for Writing and Speaking skills.

“AI can be **useful** in giving feedback to written materials produced by the students. (B.1.) AI also be useful in giving feedback to speaking. I guess that if an AI-based and/or integrated device or platform is generated to monitor and **give feedback** to individual students during or after speaking, they will be more aware of their improvement, weaknesses, and strengths. (B.2.)”

For personal use, the participant finds AI useful. Another issue the participant added is that education lack AI integration.

“Of course. (B.1.) AI has always been **needed** in our daily lives. Education systems are lacking AI. More integration and more usage are required in education.”

- Participant 7 said that the usefulness of AI depends on the course or the skill you teach.

*“I think they can be used in many ways, like, in some post activities may be and apart from the classroom they can be **useful** for the students, (B.1.) like, out of the classroom, at home as well. So we can use it to check their work and we can use them **to improve their English**, in general, maybe vocabulary maybe especially grammar, in writing, (B.2.) I don’t know, so we can use it in many ways in different courses. It depends on the courses that you are teaching.”*

For the usefulness of AI in general. the participant agreed.

*“ Yes, I find it **useful** in general. (B.1.)”*

- Participant 8 said that it would be fair and useful to use AI in class in many ways and it would reduce human error when it is used in class.

*“Well in my classroom I can use, like, it doesn’t have to be about education, we can use other apps that you AI even like, I don’t know, I can only think of Maps right now, but there are even social media that is based on AI or, Uh, is assisted by AI, so we can use those apps and we can do, we can use like I said, those tests online that you can use to **self-assess** and it can make the process faster, and it will be less of a burden for the teachers. (B.1.) So it will not be too much work. And, of course, less human error or no human error so I think it will also be fair so we can use these in the classroom. (B.2.)”*

Participant added that AI became the most necessary thing in our daily lives so according to the participant, it is quite useful.

*“ I find AI **useful** in every part of life. (B.1.) I think it is **necessary** and we no longer can live without the help of AI. We do not realize that everything we use especially our phones, everything there is based on AI, you even may Google something AI is helping you find a thing you are looking for faster so those things, (B.2.) I mean, we cannot do it without those.”*

- Participant 9 pointed out that AI is useful in every part of language teaching, especially in-class activities.

*“Online assignments, portfolios, homework, etc. **During the class**, especially for warm-up activities such as playing Kahoot or jeopardy. (B.2.)”*

Lastly, the participant agreed on the usefulness of AI in general by replying

“Yes. (B.1.)”

- Participant 10 said that even in the coursebook additions, teachers have already started to use AI which makes AI undeniably useful in class.

*“For every skill we teach, coursebooks or extra resources have already given AI-based additions so teachers can **use it in class or outside the class.** (B.2.) For that reason, AI is quite **useful** since we live in the digital era. (B.2.)”*

For daily use, the participant said that AI has become something people cannot avoid or hide. Therefore, the participant said that AI undeniably eases our lives.

*“It is impossible to hide from AI. Almost everybody has a smartphone or smartwatch. Again almost everybody has social media account on Facebook, Snapchat, Instagram, Twitter, Youtube, or Netflix. Even to use Maps, we need to use AI. (B.2.) So it is definitely **useful.** (B.1.)”*

The third group of the question which is question seven is to see the difficulty level of AI in students’ perspectives according to teachers.

- Participant 1 stands in the middle about the difficulty of using AI from students’ perspective by pointing out that change is difficult but it is inevitable just like online lessons.

*“Umm. As I said in the previous questions, yes there will be some kind of **difficulties** for sure (C.1.) because **every change is hard.** (C.2.) Changes are hard for humans and human psychology. So actually... generally we don't want this. Nobody wants to change. It's scary for people, people, people feel scared about that. But in the point that we have to change, we do it with that force or with that. Uh, anxiety. In the end, everything is going to be more comfortable. Also, the students are going to feel this way, I think, but yes, that there will be difficulties for sure about that and maybe, for example, some of the students won't want it in the future because, for example, right now we have online lessons, they can just mute themselves or if they don't want to show themselves, they just turn off the Cam and still listen. The lesson which is going on. And actually, we say that, OK, if you are listening. It's OK, it's acceptable, but in that way, it's going to be so realistic, so they*

should participate like 100 percent of themselves in the lessons, which means that they cannot escape it. So if they are going to have options, probably some students are going to choose the classical method which is going to be easier for them and it's going to be, I don't know if there's some option, there will be a separation in the students.”

- Participant 2, who works at a Public University, pointed out that the difficulty of AI depends on students' socioeconomic situations. Students with lower socio-economic situations may not have the same opportunity to use AI-based platforms because of internet issues or lack of devices.

“Uh. Well, I think it depends on the students' socio-economical situation. (C.1.) Students coming from lower-income neighborhoods, would not be able to use AI as effectively (C.2.) as a student who comes from a higher income or better socioeconomic situation since they cannot use the internet a lot in their own environment or they don't have the devices to do so.”

- Participant 3 said that some students found it difficult at the beginning but when teachers show how to use the AI platform, the difficulty level changed. Therefore, it is all about giving a tutorial before using it.

*“Actually, uh, **some of them find it difficult.** (C.1.) Uh-hmm. And... For example, when I use Grammarly in my classroom, uh, some of the students already know about the platform, but some of them haven't heard of it. Uh, saw uh, they couldn't manage how to use? How to learn the features of the platform and they needed a brief tutorial about how to use the platform. Uh, but when they try, when they practice, they learn it, of course. (C.2.) But uh-huh, before the trial, they needed a quick tutorial.”*

- Participant 4 points out the difference between the past and now and how the perspective of students changed toward AI. It is not difficult anymore as technology is everywhere in daily life.

*“ All... If this question was asked me more than 20 years ago. I will say yes, but now? Uh, technology is developing day by day and every individual is starting to search for anything or find anything online. I don't think they'll. (C.1.) students, all learners will struggle with these platforms or applications, somehow they will **manage to survive them.** (C.2.)”*

- Participant 5 said that students find it difficult no matter how they are involved in technology today.

*“Yes, **they do**, (C.1.) actually, even though they are born into technology, they are not really good at using it and they only know how to use social media. They are not good at any other useful educational platform. So teachers spend a lot of time teaching it actually. And for that teacher should be able to, you know, do it really effectively in order to teach it. (C.2.) So I think, yes, learners find it **difficult**.”*

- Participant 6 pointed out that students find it quite easy to use as they have already been using some of these platforms.

*“**I don't think** they will find it difficult. (C.1.) On the contrary, they will find them **quite easy** to use because they have already been using some AI-based or integrated platforms. (C.2.)”*

- Participant 7 said that of course first, they found it difficult. However, students are open to learning new things. When it is fun, they learn it quickly.

“ Yes, at first they had this idea like ‘what is this?’, ‘how am I going to use this?’ but you know, like, generations that they are very open to learning new things on technology in general so no problem. It is fun if they like it they learn it quickly (C.2.) so I don't think that they find it very very difficult. (C.1.)”

- Participant 8 said that all learners find it difficult at the beginning with all educational tools. However, when they learn about it, they will have no problems.

“Well, students or learners usually find all educational tools challenging at first but then they learn really fast, you know, so Uhm, I don't think they find it difficult. Only at first, but after that, they just get used to it and there are no problems.”

- Participant 9 states that the difficulty level of AI depends on the task itself. If it is a game or something entertaining, students quickly understand the instructions.

*“Generally students find it **easy** if it is **based on a game** or something like that. If it is an assignment, they behave like Amish people.”*

- Participant 10 said that it is all about students' motivation rather than the difficulty of the AI. Students, if teachers give clear instructions, will find it easy to use.

“I think it is all about the information or instructions we give to students in class. If they know what to do, they will eventually understand how to use AI-based platforms. Just like... Uhm. Games and activities, they know now how to play or do it on an online platform.”

The fourth group of questions, questions two, three, and nine is to evaluate applications and the effectiveness of AI and how teachers use or adapt these integrated AI platforms in their classes.

- Participant 1 on the effectiveness of AI pointed out that AI has already been effective in every area since it has many advantages. So as in teaching, it is undeniable that AI is useful to exploit its sources. However, in the future, there will be much need for AI.

*“As being effective in every kind of job and career, I think it's going to be very **useful** for teaching and learning and I really believe that we are going to have lots of benefits from that system and platform or whatever it is going to be. So for example, we could have lots of different kinds of variety of sources (D.1.) like now we are using computers, but maybe in the future, we will have different kinds of Uhm, devices for that, because everything is changing so fast. So I think yes, it's going to be **beneficial** for sure. (D.2.).”*

On the other hand, the participant's opinion on using AI in English teaching is that is not supportive of using it because it comes with its challenges when learning a new system.

*“ I am not very supportive of the idea of using that right now because it seems so complicated (D.1.), and also I have some kind of doubts in my mind about the perspective of the students. First, we have to educate them about how to use it or how to get used to that. So they should be qualified or they should be skilled about that. How to use it like learning a new platform or any kind of like devices. So the first **obstacle** is going to be for learning the system. I think right now for example we are using Zoom or Teams. (D.2.) And we have lots of **difficulties** advanced for the students, although they can do many, many things on like social platforms and they*

know how to use it. Actually, they are very successful at some points. But when it comes to using zoom or the teams, they say lots of things and excuses to the teachers. So in the future, maybe we will have the same problems too about artificial intelligence systems from the student's point of view."

For the last part about in what ways AI is going to be useful in language teaching, the participant pointed out that, using AI is costly. However, using AI will be suitable for the assessment part.

*"Ohm the best thing is going to be about the **assessment**. The measurement it's going to be so clear, so fair. So we are not going to think about whether are we doing right or wrong about these students or we will don't have any doubts about that. For this part, I am really hopeful about that and I'm also waiting for that day about **testing** and measurement, (D.1.) on the other hand, we can adapt it to the tasks and the classroom activities as well. So it's going to be. If if we can put it in our classes and if you are going to have that technology and the economic situation in every class because I think it's going to be just in the cities for some kind of years in future. So because it's going to be so expensive about developing the system and the devices that are going to be the other problem. So for example, like the private schools and the state schools, I'm not sure about that. Every state school is going to have the opportunity to afford that system. It's going to be expensive for sure."*

- Participant 2 said that it can be effective in many ways when teaching English, especially through skills such as teaching Writing, Vocabulary, or Speaking.

*"Well. Yes, **in many ways**. (D.1.) Like, you can use writing applications to give more effective **feedback** to students. Err, The same goes with speaking exercises with AI-supported systems. And vocabulary learning would be also **effective positively**. (D.2.)"*

For the second part, the participant said that AI is applied both in online and face-to-face classrooms.

*"I try to integrate AI into my virtual classrooms as well as face-to-face classrooms as much as possible through **mobile applications** and **computer applications**. (D.2.)"*

For the last part, it can be said that using AI can be effective for the self-study

of students.

*“Well, as I’ve said before, in language teaching, AI can **help** students improve their skills and it can also help students study by themselves, self-study would be improved more with AI-supported systems, (D.1.) and teachers’ burden on students’ homework would be less so students can study more **effectively** (D.2.) when there isn’t a teacher available.”*

- Participant 3 finds AI effective and there are some useful applications that students and teachers can use individually for themselves. However, it is added that to make AI effective, teacher guidance is necessary.

*“It can be **effective** (D1.), I think. There are some reasons for that. Actually, it is told that AI may not be trusted, and may not be reliable. It may not be reliable on its own actually, but if it is **guided**, if these AI platforms are guided by teachers in the classrooms. They can be effective in teaching English. I think. For example, if we talk about Grammarly. We can assign a task to the students and then we can **channel** the students to use these platforms. Grammarly, for example, for **feedback**, and that teacher can **assess** or **evaluate** writing task I mean. The students can use Grammarly on their own because these kinds of platforms, these AI-integrated platforms are increasing the **learner autonomy** of students, (D.2.) I think. Uh, because the students are born into the digital world and they are used to this digital era, they should get used to learning how to use these platforms on their own and the teacher's guidance may be added to this kind of learning, I think.”*

For the next question, the participant has a positive perception of using AI in ET. A lot of useful applications can be effective in language teaching according to the participant.

*“Actually, I may have given the answers to this question. Uh, I find it **positive**, (D.2.) I have a positive perception about using AI in English language teaching because the world is changing and everything is becoming digital in our life so. Uh, English language teaching should be technology-enhanced learning. Uh, because actually, if we think about our real classroom environment, we can't do anything without technology. We use technological devices every day. And why don't we use **AI-integrated tools** to teach English? Uh. We use, for example, Kahoot or we use. Uh, grammar checkers? (D.1.) Uh. We also use grammar checkers on our own.*

So why don't students use them? And as I have set as I mentioned in the previous question. Uh, actually, they should be integrated, I think. Of course teachers, feedback or teachers' guidance is very valuable but AI-integrated technology can help teachers' guidance. So I think they should be integrated into the real classroom.”

- Participant 4 finds AI highly effective, especially from learners’ perspectives. Motivation in class increases and AI engages students in-class activities.

*“Uh, actually, yes. It's highly **effective** for learners in the learning process (D.1.) because with the help of the technology, the development of the technology, we started to use different kinds of materials and the students also. Play some games. Uh, for learning English. And AI provides such kinds of things. For instance Kahoot we use Kahoot platforms and we can create some questions and AI can mix the questions and create a game for us. (D.2.) Uh, that actually makes students feel **excited**, and they are learning. Uh, how can I say? Motivation is getting high.”*

The participant’s opinion on using AI is that it supports teachers while teaching through games and materials. However, the participant, again, did not prefer to use it too much.

*“Actually, in my opinion, AI can **support** us while teaching. (D.2.) How? Uh, Well, I teach something I need to show some visual materials or audial materials so artificially just can, Uhm, exist in that area, but instead of it, I would not rather use AI too much in the English language teaching. Except for the games, and the materials. (D.1.)”*

For the preferences of using AI in useful ways, the participant gave examples of showing movies or listening to music.

*“Actually, it's highly **useful** in speaking (D.2.) because the learners need to see **Ted talks**, (D.1.) how people talk confidently, or how to express themselves in front of the audience. That's part is completely fine also in the vocabulary part. The AI also can provide several games, and exercise materials for us, and the learners. Uh, however, reading or grammar? I don't think it's really important for it, but the listening. Uh, maybe movies Or music can help learners to hear the voices easily in language learning.”*

- Participant 5 said that teachers need to catch up with the innovations to grab the attention of the students in class. Therefore, AI is an inevitable part to grab the attention of the students since it is a new way of teaching English.

*“Definitely. (D.1.) Because it is first of all **interesting for students** (D.2.) and to grab their attention, we need to be a part of the new world and like as a teacher, showing that you're a part of the **new role helps you**, you know, catch the attention of the student at the same time.”*

The participant’s opinion was given from the application used in class before as an example.

*“Well, I **used** it once. Uh, like there was an **application** (D.1.). I forgot the name of it, but it was like you embed something on a wall and when you use the application in your camera on the phone you can just see the blank wall. But when you come to the point where I embedded the information, you can visualize it. So I use something like this. Do you? Do you know the name of the program? Mine was like Pokémon Go. So when you catch it, you know it's there, you can see it. So are you something like it? And I think it was really **effective** (D.1.) because, you know, students really enjoyed the process. That's the most important thing. Usually, instructions are boring, for example. But even instructions were fun when I was doing this activity because they were learning something extraordinary. That was the thing.”*

Next, the participant pointed out that AI can be used when the lesson is not engaging enough or boring. To make lessons interesting, AI can be effective.

*“Uh, four uh lessons which are considered **boring**, like reading and writing. Maybe we can use such platforms to make it more interesting. (D.1.) I mean and. And just like metaphors, you know when they if they have such a platform, now we don't use it, of course. But when I imagine using such a platform, it might feel like playing a game so. Uh. You know, we do **gamification** in our classes, but I think visualizing the game would be much more **beneficial** in the lessons. (D.2.)”*

- Participant 6 said that AI is quite effective.

*“Yes, **it can be**. (D.2.) If it is used with vigilant care and attention, it can improve someone's English skills.”*

It should be also added to the administrative issues and more used in class.

*“ It is quite **effective**. (D.2.) Teachers should integrate them into the class more. Also, the **administration** should integrate AI into the **syllabus**. It should a part of it. Some **assessments** can be done through AI.(D.1.)”*

Lastly, on feedback, AI can be quite useful.

“Feedback to written materials, vocab teaching, pronunciation feedback. (D.1.)”

- Participant 7 said that AI is definitely useful in teaching English in many ways especially, individually, in group work, or pair activities.

*“I absolutely think that it is effective in teaching English because, like, it can help students in many ways to **check** their work and to **upload** their work and to do more group work and pair work activities, (D.1.), etc. So I think that it is **effective**. (D.2.)*

Next, the participant said that using AI is quite beneficial for students. The participant is very comfortable using any kind of AI platform when teaching English.

*“I’m really open to using different **platforms** like AI platforms in English language teaching, (D.1.) I feel comfortable, and using with them might be **fruitful** and **beneficial** for my students (D.2.) so that’s really a good idea in general.”*

Lastly, the participant added that using AI can guide students and make them comfortable with what they do, and can make them more comfortable.

*“As I’ve just said before, like, these platforms can **guide** the students’ learning in such a way that students have the **comfort** to check their work, practice on these platforms this makes students more **self-confident**, so this is what I think. (D.1.)”*

- Participant 8 said that it can be effective for learners’ self-study and self-assessment if teachers assign them any material.

*“They can be **effective** in self-study (D1.) I believe, so, we could give self-study materials Uhm, through AI-based applications and Uhm, this helps them like **self-assess** (D.2.) and Uhm, I can’t think of any other example but I think it is effective in English teaching.”*

Next, the participant's perception is positive of using AI. AI technology is quite helpful to human beings.

*“ I feel **positive** about it. (D.2.) I think it should be used, like, we should find ways to integrate it more because it is an amazing technology and it helps humans tackle see that they don't want to deal with. (D.1.) ”*

For question nine, the participant said that it makes everything easier for both sides since there are lots of applications.

*“AI in language teaching, just like in every other part of life, makes it **easier** for the teachers and the students. (D.2.) Definitely less time finding whatever you are looking for, let's say you are using an app that translates for you, it will be more coherent and faster rather than translating one by one word to make a sentence by yourself, (D.1.) you know and, Uhm, I can think language learning apps students play games there (D.1.) again it is easier to track your progress that AI does it for you it assesses your test and gives the answers, explains the answers, it is fast, convenient, private so I believe it is useful, of course. ”*

- Participant 9 said that AI is effective for both sides. It is time-saving, especially for the assessment part.

*“Using AI can be **effective** for both students and teachers. (D.2.) AI can be used to grade papers and essays which allows teachers to focus on teaching. It is time-saving. ”*

Participant added that especially for gamification, AI applications are quite useful. It is also helpful for teachers, too.

*“Gamification is one of them. Also, there are some useful **applications** (D.1.) that allow users to practice the target language with native speakers. This is very **helpful** for learners. (D.2.) Also, teachers gain time thanks to AI. Plagiarism can be detected easily and it can be useful for exam integrity. ”*

- Participant 10 pointed out that although the effectiveness of AI is undeniable, what makes AI effective is related to the teacher's way of presenting and engaging the students in class when using AI.

*“Of course. Uhm, it is **definitely effective**. (D1.) However, if the teacher does not know how to use the AI platform or cannot use it in a relatively activity, there is*

*no use to put AI into the classroom. An application cannot be quite **practical** unless it is given as a correct activity. (D2.)”*

On the other hand, the participant said that AI is also useful to track students’ developments in language learning.

*“AI can be given outside the classroom for students with self-study materials. It also allows teachers to **track** students’ improvements in language learning. (D.2.)”*

The last group of questions, questions four and five, is to evaluate the reliability, validity, and objectiveness of AI in exams.

- Participant 1 pointed out how to use AI with a device in the future in the classroom to make lessons useful by giving an example of wearing devices. The participant also said that blending AI with a task-based method can be quite useful in the classroom.

*“Of course, they are going to be so **reliable** and **valid**, (E.1) but the problem is after we are going to have the output, someone is going to announce it, so it's going to be a team or it's going to be a team or a unit like the testing unit. So, in the end, the output is going to come to a person and again there will be a human effect that can mislead it. If the person is not very, let's say. Hmmm. Trustable because in the end we are humans, so we can use everything for our perspective and our use. So we have to get rid of every kind of human effect from that system and I don't really believe that when we are going to use artificial intelligence in testing or evaluating again, we are going to have the human effect. So we will have the same problems. Nothing is going to be changed. I mean, when the human effect is in it.”*

For the objectivity part, the participant answered the question by pointing out that AI will be certain when it comes to grading.

*“It's going to be. Hmm. **Sharper**. (E.2.) I think for the students. Because right now we know the students' performances in our classrooms and we know what can they do or how can they make their levels higher or lower. So then we evaluate our students, and we have the perspective that the student is actually good. I know it, but he or she is maybe so stressed or excited or with the effect of excitement he or she got lower marks but in the end, we know that he or she could pass the level. But when it comes to artificial intelligence it's not going to be in this way. Artificial intelligence is not going to say that. I know this student's potential. So he's going to*

pass or fail. So it's going to be sharper and actually, it's going to be so fair. Maybe, it's going to be better.”

- Participant 2 pointed out that AI is reliable.

*“They are already **reliable** (E.1.) in many respects but some would need improvement or feature implementation like writing is very well to give feedback but there might be some issues with that when actually evaluating the answers. The same goes for speaking AI may not be able to pick up everything at the moment but in the future, with the right input, it may affect the evaluation of students positively. ”*

On the other hand. AI is quite objective according to the participant’s view since teachers have emotions while grading a paper of their students.

*“They are... They have a tendency to be more **objective** since we give them the inputs in the first place. (E.2.) They are more standardized. Teachers usually have a tendency to be subjective when it comes to their own students and it can be problematic.”*

- Participant 3 said AI is not valid enough for now which leads teachers to assist AI with feedback.

*“ You mean in the future or now? General. Umm. Actually, they are **not valid enough**. (E.1.) I mean, most of the teachers and students think that. And the feedback from these kinds of platforms is not reliable. They are not accurate enough or they don't believe in accuracy because they think that it is AI technology. I mean AI technology can make mistakes. Uh, what? Uh, I think AI-based, assessed exams. May not be reliable enough so teacher feedback or teacher assessment is needed after the assessment of AI exams. I think. I mean they won't be completely reliable. Uh, because uh? I mean it is different from human scoring. As I have said, they should be integrated. They should be used together.”*

However, based on the participant’s answer, it can be said that AI is objective.

*“I mean, actually, yes, they are going to be **objective** of course (E.2.) because I mean. Uh, in most of the cases, teachers sometimes. Uh. As you sat round up the numbers or they think that this student is successful and he or she just makes a mistake because of concentration problems may be and teachers give higher scores*

sometimes or... and teachers' assessments are somewhat subjective. I think in most of the cases, for example in terms of writing, for example, I mean we can't do anything about multiple choices of course. But in writing yes, teachers' assessment is very important and it may be subjective, but AI-based cannot be subjective. Uh, it is completely objective, yes, but it's maybe pardon, it must be accurate."

- Participant 4 pointed out that AI is useful for in-class activities such as games or visual resources. However, the participant also said not to prefer to use it.

*"Uh, in my opinion, it **depends** on the situation, because if students do not cheat in the exam or do not take a copy or paraphrase it. That's gonna be reliable and valid. On the other hand, if they start to use different kinds of cheating methods. Although it looks **reliable** to me, it will change the situation. (E.1.)"*

The participant added that AI is objective.

*"Of course, in my perspective, yeah, it will be a much more **objective** assessment rather than a teacher assessment (E.2.) because AI will examine or analyze all the details, all the mistakes, punctuation, vocabulary, and grammar without giving emotion. However, when we assess our students or someone else's students, we will give, we will put our emotions in front of the results. I mean we can ignore some mistakes, but AI will never do it."*

- Participant 5 said that the usefulness of AI in the classroom is important for interaction.

*"That's **debatable**. (E.1.) Exams are problematic in AI I think because. It leads to too much cheating actually. Uh, even now, in hybrids education, this is a big problem. And with the integration of AI, I think it will be a bigger problem because they will not use their original ID mostly and it will feel more relaxed and less formal. So it will increase the cheating I think."*

However, according to the participant, as teachers have emotions, of course, AI will be more objective.

*"Yes, I mean we are human beings and we have senses. We are of course affected by our emotions and AI will **definitely** be **more objective** in the sense I think. (E.2.)"*

- Participant 6, who worked as a Testing Officer, pointed out that unless AI is trained well, the assessments are not going to be valid.

*“If AI-based examination platforms are trained well enough and if the evaluation and assessment process is taught to AI carefully, I think they can be reliable and **valid**. (E.1.) However, the test and trial of AI-assessed exams should be completed and the results should be evaluated and interpreted appropriately. T-tests can be benefited to measure the reliability and validity.”*

Next, the participant said that AI-assessed exams are going to be more objective but cruel.

*“I totally think that they are going to be more **objective**. (E.2.) My only concern is that they are going to be a little bit cruel. Although teachers grade the papers according to standardized rubrics, I totally believe that they also grade the papers subjectively. Despite the fact that the measurement of subjectivity is quite low, still there is the issue of subjectivity. I believe that as long as AI is trained to be a little bit subjective, the grades can be a bit of disappointment and can be discouraging for the students.”*

- Participant 7, who worked out as a Testing Officer, pointed out that

“When it comes to assessment, like, based on my experience as Testing, I can say, no it is not totally reliable and valid, maybe it can be a part of the assessment but the assessment shouldn’t be all relied on these platforms. ”

Regarding the objectiveness of AI, the participant said that absolute objectivity may not possible for AI. However, when compared to teachers, it can be.

*“Again, to be honest, I don’t think that they are going to be totally objective but they are not gonna be objective, when the teachers, like, grade them because, in a way that teachers are biased but maybe these platforms, maybe **more objective**. So this is what I mean. (E.2.)”*

- Participant 8 said that only if AI is trained well, then it will be better for the assessments. However, the participant pointed out that this is not possible for now.

*“If the AI training is done correctly, this should take like... years, over 10 years you train the AI then, of course, like, it is **nearly identical** to human*

intelligence (E.1.) and also there is always there is a possibility of human error and in AI there is no human error, so maybe it will be even better but like I said, it should be trained very well because before we implement those in an exam.”

Participant added that AI became the most necessary thing in our daily lives so according to the participant, it is quite useful.

“ AI assessments, of course, it is going to be based on data that is given to the machine, so, Uhm, it just learns like there are no emotions, you know, so I believe it is going to be more objective (E.2) ”

- Participant 9 pointed out that AI is reliable but for the cheating issues, it might not be considered valid.

*“The results are **reliable**, (E.1.) I mean AI can be useful to calculate the results (better than humans) but applying for exams online can create problems such as cheating. It cannot be **valid** then.”*

Lastly, about objectivity, the participant said that AI is totally objective.

“Yes. We, as teachers, can be emotional during the grading process. For example, If there is a mistake in spelling, we can give a full grade but AI doesn't. (E.2.)”

- Participant 10 said that using AI for exams can be absolutely objective. However, for the cheating issues, AI cannot be as valid as it might be.

*“Using AI in exams, especially in important exams like proficiency, can be objective (E.2.) just like using an optic-form. However, it might not be **valid** or proof of students' cheating (E.1.) if AI has no background data on the student before. The same goes for teachers. At the beginning of the Proficiency, when teachers grade papers, especially Writing and Speaking, grading is automatic just like an AI. But, Uh, real grading might not be proof for the student. He or she might cheat because they sometimes open their cameras and close their microphones if the exam is online. Anything can be done during the exam. It cannot be trusted. Each grade might be different if the exam is online or face-to-face. We might not know if the student is cheated or not.”*

For the objective assessment of AI, the participant said that it will be absolutely objective compared to teachers since AI lacks the emotions to round up

the grade of the student based on the previous information.

*“Of course, as teachers, we sometimes round up some points, or even though we grade based on the rubrics to standardize it, there are still differentiations between two graders. Schools sometimes let teachers give more objective grades such as there can be a difference between two graders between 3 or 5 points, but sometimes teachers can round up based on students’ background achievements or information. The student can be sick, nervous, or sad on the exam day and if we know that the student can survive in his or her department, we can give grades based on that situation. AI is **unbiased, totally objective**, (E.2.) and may not be able to consider while grading those kinds of obstacles or emotional ups and downs.”*

2. Perception of Language Learners

The first step was to look for the reliability of the tool from the SPSS program. Though the tool’s reliability was tested before by Mukhallafi (2020) and resulted in 0,931, in this research, the reliability result of the Cronbach’s Alpha can be seen as 0,979 in total. It can be said that this tool is highly reliable. The reliability statistics are given in Table 5. below,

Table 5 Reliability Statistics

Cronbach's Alpha	N of Items
,979	40

Likert-scale type interpretations of the item availability were given by Mukhallafi (p, 46) as they were divided into 5 parts based on the range of mean values below;

- 1) Available/considerably important: the range of mean values: (4.20–5.00).
- 2) Available/very important: the range of mean values: (3.40–4.20).
- 3) Available/important: the range of mean values: (2.60–3.40).
- 4) Available/somewhat important: the range of mean values: (1.80–2.60).
- 5) Available/a little important: the range of mean values: (1.00–1.80).

In this research, descriptive statistics results were used from the SPSS. These subfactors were analyzed based on the scale prepared by Mukhallafi (p. 46). In this research, the survey questions were created related to the research questions. The

main aim was to see the applications of AI effectively and to create the concept of using AI in class in every way. Results were several in that study such as very high, high, and medium levels of agreement, which was done with 44 random male students from the information given in the abstract part. The descriptive statistics of the statements between 1 and 8 are given below in Table 6.

Table 6. Descriptive Statistics (1-8)

Descriptive Statistics						
	N	Range	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Linking AI as one of the outcomes of the digital cognitive revolution to the outcomes of learning English	100	4,0	3,040	,1100	1,1002	1,211
AI applications include intelligence, memory, inference processes, and human intelligence simulation processes	100	4,0	3,160	,1108	1,1075	1,227
Expert system applications as part of the AI educational applications used for designing curricula and organizing the educational experiences of teaching English	100	4,0	2,970	,1077	1,0774	1,161
Employing applications of natural language processors for teaching/learning English, especially the ones related to the work of the brain and the cognitive-linguistic structure	100	4,0	3,010	,1030	1,0298	1,061
Applications of translation programs and employing them to develop the skills of reading and writing and the translation of the English texts	100	4,0	2,890	,1171	1,1712	1,372

Table 6. (con) Descriptive Statistics (1-8)

Descriptive Statistics						
	N	Range	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Employing the interactive smart translation strategies by using smart tools to build simultaneous interpretation skills and to edit texts written in English	100	4,0	3,000	,1146	1,1459	1,313
Smart voice communication strategies and strategies of interactive communicative language for designing and implementing the participatory educational situations used in English classrooms	100	4,0	3,050	,0947	,9468	,896
AI applications include smart educational systems for teaching English, especially for developing teaching/learning practices	100	4,0	2,870	,1022	1,0215	1,044
Valid N (listwise)	100					

The first field of Mukhallafi's item *availability* is adapted to the first research question "*In what ways AI integrated platforms/applications can be used for English Language learning according to the perspectives of students?*" (1-8) the range of availability of the first group resulted in the **medium** level of agreement as their mean values are between 2,870 and 3,160.

- Item one, Linking AI as one of the outcomes of the digital cognitive revolution to the outcomes of learning English, shows a medium level of agreement. The order number is 2 because its mean value is 3,060.
- Item two, AI applications include intelligence, memory, inference processes, and human intelligence simulation processes, shows a medium level of agreement. The order number is 1 because its mean value is 3,160.
- Item three, Expert system applications as part of the AI educational applications used for designing curricula and organizing the educational

experiences of teaching English, shows a medium level of agreement. The order number is 6 because its mean value is 2,970.

- Item four, Employing applications of natural language processors for teaching/learning English, especially the ones related to the work of the brain and the cognitive-linguistic structure, shows a medium level of agreement. The order number is 4 because its mean value is 3,010.
- Item five, Applications of translation programs and employing them to develop the skills of reading and writing and the translation of the English texts, shows a medium level of agreement. The order number is 7 because its mean value is 2,890.
- Item six, Employing the interactive smart translation strategies by using smart tools to build simultaneous interpretation skills and to edit texts written in English, shows a medium level of agreement. The order number is 5 because its mean value is 3,0.
- Item seven, Smart voice communication strategies and strategies of interactive communicative language for designing and implementing the participatory educational situations used in English classrooms, shows a medium level of agreement. The order number is 3 because its mean value is 3,050.
- Item eight, AI applications include smart educational systems for teaching English, especially for developing teaching/learning practices, shows a medium level of agreement. The order number is 8 because its mean value is 2,870.

To order the items from one to eight, the first item is the second item as it reflects the highest agreement compared to other items. The 8th item is the last in the first group as it reflects the least agreement compared to other ones which can be said smart educational systems were not fully applied in learning/teaching English though there is a highly common hybrid education. In total, the availability of the perspective of students has resulted in the medium-range for AI integrated platforms/applications in English language learning. This means that students are not fully acknowledged the AI-based platforms. They are neither considerably acknowledged of AI nor are not fully alienated from it. It can be seen that they are

somewhat familiar with it. When analyzed from the teachers' perspective, students need **guidance** to use an AI-based application or platform to utilize fully. The descriptive statistics of the statements between 9 and 18 are given below in Table 7.

Table 7. Descriptive statistics (9-18)

Descriptive Statistics	N	Range	Mean	Std. Error	Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Intelligent tools help solve problems of language teaching, especially classroom density, classroom availability, availability of teaching material suitable for language teaching.	100	4,0	3,070	,1094	1,0941	1,197
AI applications augment self-study activities by providing varied cognitive tracks and preference models.	100	4,0	2,910	,1045	1,0454	1,093
Enhancing knowledge representation processes by smart machines, linking the cognitive fields together, and simulating lab experiments through virtual reality labs	100	4,0	3,020	,0953	,9533	,909
Supporting students by simulating natural the interpretation that enhances reading comprehension phenomena, and introducing the interpretation that enhances reading comprehension	100	4,0	3,040	,1205	1,2054	1,453
AI applications boost highly complicated educational tasks that save time and effort	100	4,0	3,020	,0985	,9845	,969
AI strategies augment students' attention and motivation levels so that they may effectively take part in the language teaching process.	100	4,0	3,000	,1082	1,0825	1,172
AI applications enhance students' skills in listening to English.	100	4,0	2,980	,1092	1,0916	1,192

Table 7.(con) Descriptive statistics (9-18)

Descriptive Statistics	N	Range	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
AI applications enhance students' ability to master the skill of speaking in English	100	4,0	3,070	,1094	1,0941	1,197
AI applications enhance students' ability to master the skill of reading in English.	100	4,0	3,170	,1074	1,0736	1,153
AI applications enhance students' ability to write in English.	100	4,0	3,010	,1040	1,0396	1,081
Valid N (listwise)	100					

The second field of Mukhallafi's item availability is adapted to the second research question "*Can developments in AI be effective in English Language learning?* (9-18) the range of availability of the second group resulted in a **medium** level of agreement as their mean values are between 2,910 and 3,170.

- Item nine, Intelligent tools help solve problems of language teaching, especially classroom density, classroom availability, availability of teaching material suitable for language teaching, shows a medium level of agreement. The order number is 2/3 because its mean value is 3,070.
- Item 10, AI applications augment self-study activities by providing varied cognitive tracks and preference models, shows a medium level of agreement. The order number is 10 because its mean value is 2,910.
- Item 11, Enhancing knowledge representation processes by smart machines, linking the cognitive fields together, and simulating lab experiments through virtual reality labs, show a medium level of agreement. The order number is 5/6 because its mean value is 3.020.
- Item 12, Supporting students by simulating natural the interpretation that enhances reading comprehension phenomena, and introducing the interpretation that enhances reading comprehension, shows a medium level of agreement. The order number is 4 because its mean value is 3.040.
- Item 13, AI applications boost highly complicated educational tasks that save time and effort, shows a medium level of agreement. The order number is 5/6

because its mean value is 3,020 as item 11.

- Item 14, AI strategies augment students' attention and motivation levels so that they may effectively take part in the language teaching process, shows a medium level of agreement. The order number is 8 because its mean value is 3,0.
- Item 15, AI applications enhance students' skills in listening to English, shows a medium level of agreement. The order number is 9 because its mean value is 2,980.
- Item 16, AI applications enhance students' ability to master the skill of speaking in English shows a medium level of agreement. The order number is 2/3 because its mean value is 3,070 as item nine.
- Item 17, AI applications enhance students' ability to master the skill of reading in English, shows a medium level of agreement and its order is the first one because it shows 3,170 mean value.
- Item 18, AI applications enhance students' ability to write in English, shows a medium level of agreement. The order number is 7 because its mean value is 3,010.

To order the items from one to 10, item nine is in the first order of importance as its mean value is 3.170. Item 8 becomes the last one as its mean value is the lowest at 2,910. All items in the questionnaire in the second field of this research showed that students show a medium level of agreement again. This is quite normal as the second field is about the effectiveness of using AI to improve the English teaching/learning process and outcomes or the **effectiveness** of developments in AI for ELL or ELT. As using AI has not reached its peak yet, the medium level of the agreement shows that developments in AI have an effect on the process or outcomes of teaching or learning English. However, there are still difficulties or ambiguities in using AI to completely integrate with ELL or ELT. The descriptive statistics of the statements between 19 and 30 are given below in Table 8.

Table 8. Descriptive statistics (19-30)

Descriptive Statistics						
	N	Range	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Mastering the AI techniques concerned with extracting information and building the ability to understand reading passages	100	4,0	3,140	,0964	,9642	,930
Employment of AI applications to recognize spoken words correctly	100	4,0	3,010	,1133	1,1326	1,283
Employment of OCR techniques for the analysis of English texts	100	4,0	3,160	,1089	1,0892	1,186
Using open digital language dictionaries to enrich the student's vocabulary	100	4,0	3,100	,1078	1,0778	1,162
Employment of the techniques of evaluating the writing skills in order to train the students in these skills gradually	100	4,0	3,130	,1060	1,0604	1,124
Using smart programs to enhance the speaking skills of the students who majored in English	100	4,0	3,210	,1057	1,0569	1,117
Employment of evaluating writing-skill techniques at the levels of paragraph and essay writing	100	4,0	3,090	,1016	1,0160	1,032
Employment of grading written-text techniques according to fixed standards	100	4,0	3,100	,1115	1,1146	1,242
Employment of AI applications for training in language skills	100	4,0	3,040	,1014	1,0142	1,029
Employment of smart software to include students with special needs in teaching English activities	100	4,0	2,890	,1081	1,0815	1,170
Employment of AI applications for designing programs that support the talented and distinguished students (high achievers)	100	4,0	2,950	,1123	1,1225	1,260
Employment of AI strategies and intelligent tools to overcome difficulties of English language learning	100	4,0	3,000	,1044	1,0445	1,091
Valid N (listwise)	100					

The third field of Mukhallafi's item *availability* is adapted to the third research question "What is the perception of English language learners towards the

*use of Artificial Intelligence in the language classroom?” (19-30) the range of availability of the third group resulted in the **medium** level of agreement as their mean values are between 2,890 and 3,210.*

- Item 19, Mastering the AI techniques concerned with extracting information and building the ability to understand reading passages, shows a medium level of agreement. The order number is 3 because its mean value is 3,140.
- Item 20, Employment of AI applications to recognize spoken words correctly, shows a medium level of agreement. The order number is 9 because its mean value is 3,010.
- Item 21, Employment of OCR techniques for the analysis of English texts, shows a medium level of agreement. The order number is 2 because its mean value is 3,160.
- Item 22, Using open digital language dictionaries to enrich the student’s vocabulary, shows a medium level of agreement. The order number is 5/6 because its mean value is 3,100.
- Item 23, Employment of the techniques of evaluating the writing skills in order to train the students in these skills gradually, shows a medium level of agreement. The order number is 4 because its mean value is 3,130.
- Item 24, Using smart programs to enhance the speaking skills of the students who majored in English, shows a medium level of agreement. The order number is 1 because its mean value is 3,210.
- Item 25, Employment of evaluating writing-skill techniques at the levels of paragraph and essay writing, shows a medium level of agreement. The order number is 7 because its mean value is 3,090.
- Item 26, Employment of grading written-text techniques according to fixed standards, shows a medium level of agreement. The order number is 5/6 because its mean value is 3,100 as item 22.
- Item 27, Employment of AI applications for training in language skills, shows a medium level of agreement. The order number is 8 because its mean value is 3,040.

- Item 28, Employment of smart software to include students with special needs in teaching English activities, show a medium level of agreement. The order number is 11 because its mean value is 2,890.
- Item 29, Employment of AI applications for designing programs that support talented and distinguished students (high achievers), shows a medium level of agreement. The order number is 12 because its mean value is 2,950.
- Item 30, Employment of AI strategies and intelligent tools to overcome difficulties of English language learning, shows a medium level of agreement. The order number is 10 because its mean value is 3,0.

To order the items from one to 12, item 24 is in the first order of importance as its mean value is 3.210. Item 28 becomes the last one as its mean value is the lowest at 2,890. All items in the questionnaire in the third field of this research showed that students show a medium level of agreement on the perception of students' using AI in the classroom. Though this can be considered interesting because since fully online or hybrid education has begun, AI-integrated platforms have been used. This result may lead the researchers as they either find it difficult to use or may not be fully informed about AI platforms. Even in social media, engineering, games, photo filters, video editing, house gadgets, and so and so forth, AI is everywhere. Thus these students have eventually used at least one AI-based program. In class, using AI could be at a higher level of agreement but in this research, students are at a medium level of agreement. So familiarity is not a determining issue to answer whether using AI in class is **useful** or not. The descriptive statistics of the statements between 31 and 40 are given below in Table 9.

Table 9. Descriptive statistics (31-40)

Descriptive Statistics						
	N	Range	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Laying a conceptual framework of AI, AI elements, and the justifications for its employment	100	4,0	3,050	,1038	1,0384	1,078
Determining AI applications in a procedural way in the teaching/learning activities	100	4,0	3,060	,1043	1,0427	1,087
Recognizing AI strategies in planning and managing the educational situations	100	4,0	2,990	,1087	1,0871	1,182
Offering models and examples of using AI applications in teaching/learning English	100	4,0	3,050	,1086	1,0860	1,179
Mastering the skills of program planning and teaching by using AI applications for teaching English	100	4,0	3,100	,1087	1,0871	1,182
Mastering the skills of program implementation and the employment of teaching strategies by using AI applications for teaching English	100	4,0	3,000	,1128	1,1282	1,273
Mastering the skills of learning management and educational open sources by using smart educational tools for teaching English	100	4,0	3,020	,1005	1,0048	1,010
Mastering actual evaluation skills and the evaluation based on performance in the light of using AI applications for language learning	100	4,0	3,090	,0954	,9545	,911
Employment of AI strategies and applications for learning and continuous self-study	100	4,0	3,050	,1077	1,0766	1,159
Mastering the mechanisms for the ongoing occupational development in the light of AI applications	100	4,0	3,040	,1109	1,1094	1,231
Valid N (listwise)	100					

For the last group, the fourth field of Mukhallafi's item availability is adapted to the third research question "What are the needs that are important for English teaching according to AI-based applications/platforms?" (31-40) the range of availability of the third group resulted in the **medium** level of agreement as their mean values are between 2,990 and 3,100.

- Item 31, Laying a conceptual framework of AI, AI elements, and the justifications for its employment, shows a medium level of agreement. The order number is 6/5/4 because its mean value is 3,050.
- Item 32, Determining AI applications in a procedural way in the teaching/learning activities, shows a medium level of agreement. The order number is 3 because its mean value is 3,060.
- Item 33, Recognizing AI strategies in planning and managing educational situations, shows a medium level of agreement. The order number is 10 because its mean value is 2,990.
- Item 34, Offering models and examples of using AI applications in teaching/learning English, shows a medium level of agreement. The order number is 6/5/4 because its mean value is 3,050.
- Item 35, Mastering the skills of program planning and teaching by using AI applications for teaching English, shows a medium level of agreement. The order number is 1 because its mean value is 3,100.
- Item 36, Mastering the skills of program implementation and the employment of teaching strategies by using AI applications for teaching English, shows a medium level of agreement. The order number is 9 because its mean value is 3,0.
- Item 37, Mastering the skills of learning management and educational open sources by using smart educational tools for teaching English, shows a medium level of agreement. The order number is 8 because its mean value is 3,020.
- Item 38, Mastering actual evaluation skills and the evaluation based on performance in the light of using AI applications for language learning, shows a medium level of agreement. The order number is 2 because its mean

value is 3,090.

- Item 39, Employment of AI strategies and applications for learning and continuous self-study, shows a medium level of agreement. The order number is 6/5/4 because its mean value is 3,050 just like items 31 and 34.
- Item 40, Mastering the mechanisms for the ongoing occupational development in the light of AI applications, shows a medium level of agreement. The order number is 7 because its mean value is 3,040.

In the last part, “What are the needs that are important for English teaching according to AI-based applications/platforms?” to order the items from one to 10, item 35 is in the first order of importance as its mean value is 3.100. Item 33 becomes the last one as its mean value is the lowest at 2,890. This medium level of understanding has shown that no matter how smart AI is, a needs analysis will remain a difficult and incomplete part of using AI. Students are not into the improvements or appliances of AI, they are mostly into using a well-prepared and **guided** AI. Thus, the last part has resulted in the middle.

The overall questionnaire has ended up with a medium level of agreement about every field and every part related to AI. Though students have a strong level of familiarity with using every skill such as Reading, Writing, Speaking, and Vocabulary, they have a middle agreement on using AI fully or doing the opposite.

Table 10. Total variance

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	22,006	55,015	55,015	22,006	55,015	55,015
2	1,610	4,024	59,039	1,610	4,024	59,039
3	1,544	3,861	62,900	1,544	3,861	62,900
4	1,335	3,339	66,238	1,335	3,339	66,238
5	1,171	2,929	69,167	1,171	2,929	69,167
6	1,045	2,614	71,781	1,045	2,614	71,781
7	,959	2,397	74,178			
8	,913	2,283	76,461			
9	,784	1,961	78,422			
10	,769	1,923	80,344			

The most determinant item in this questionnaire is the first one. Though some of the components, or items, are less than 60 percent, it can be said that items with more than 60% are considered useful. From item three to item 10, they can be considered useful data.

F. Limitations

In this study, the first limitation was the number of participants and as mentioned above, concentration problems occurred and forced some students not to participate, or leave it early, without submitting or finishing 40 questions. The second limitation was to reach teachers when they were available. Though there were 10 questions, arranging a Zoom or MS Teams call was almost not possible for the researcher. Three of the teachers participated in the face-to-face interview as their interview was recorded by voice only. Another limitation might be said that the number of participants for the teachers' perception is quite small. Thus it might not give accurate general results for that research study.

IV. CONCLUSIONS AND PROPOSALS

A. Conclusions

Artificial Intelligence has gained popularity since innovations in technology competed with one another. Either way, although AI is in the center of our lives through social media, games, or in class, students and teachers are not yet fully adapted themselves to it. Based on the findings, here are some conclusions that I have interpreted based on this research that both teachers and students are in the middle of the integration of AI in language teaching and learning.

Both students and teachers have a great deal of familiarity with AI. Indeed, teachers love using AI to make lessons more interactive. However, students may still find it difficult to use in class during activities without guidance. The appliance of AI is not difficult, opposite, it is quite engaging and informative. It increases the motivation toward learning a new language or practicing it in class. However, students still need guidance to use AI to utilize. Students know what is an AI. There is an undeniable familiarity. They either use it on social media or during in-class activities. However, they still do not know in what ways AI is capable or they do not know how to use AI effectively. Teachers, compared to students, are more aware of the effectiveness of using AI when used as a whole class activity or individually. However, students sometimes benefit from the features of AI for not learning the language mostly, but to save immediate occasions. Teachers all agree on the objectivity of the AI for the exams. On the other hand, there is still a conflict about whether AI is going to be reliable when grading an exam paper. Its instant feedback and error-correction features are useful and effective for both students and teachers. However, for plagiarism issues, AI needs development. Teachers have a common idea about being taken over by AI that it cannot do it in the near future. Maybe in the distant future, AI may assist in teaching, or teachers may evolve into different kinds of jobs. Mechanically speaking, AI can be successful in teaching. However, the teaching job requires gestures, mimics, eye contact, emotions, feelings, and engagement. It may sound possible, but for some teachers, it is not possible for AI to

do it successfully, especially in language teaching. Students love to use AI-based platforms as well as teachers as it improves engagement in class. Students love using AI individually as a backup because teachers mostly assign self-study materials. The appliance of AI can be quite questionable based on teachers' and students' perceptions of AI on assessment since online education led students to cheat more during the exams because some platforms are not accurate enough to determine students' cheating during the exam.

B. Proposals

Technology is improving day by day, even second by second. Some AI applications improve not only in coding but also in their similarity to humans. Just like teachers' answers, in the distant future, an AI can be a teacher in class with the understanding of human emotions and react just like a human being. Therefore, AI can be a teacher. Maybe, teaching a language may terminate because it may not be necessary for people to learn a foreign language thanks to translators. Furthermore, there may not be an "international language" in the future as everybody will understand each other without speaking the same language.

Another thing that is undeniably upcoming and has started to take part in many areas such as business, cryptocurrency, engineering, and social media is Metaverse. It can be a possibility for teaching jobs to take their place in Metaverse as Metaclasses in the distant future. Just like online classes during the pandemic, students may not need to go to school or join lessons through a glass or a device. Of course, it may also have contradictions among teachers as it may not be as effective as teaching in class since online education has half supporters, too. Unfortunately, just like AI, these applications or devices are costly enough to see everywhere.

Just like Chomsky stated, thinking or learning needs the brain as its activity rather than coding. Some deny that idea as AI has improved a lot beyond thinking like a human. Others state that AI is not as capable as humans are afraid. Understanding a language is quite challenging for someone new. It needs a general practice to acquire the language fully just like people do with their native language learning journey since they are children. In fact, learning a language can be considered a talent, motivation, and enthusiasm trilogy, learning a new language can be difficult when people get older. Compared to children, learning a new language

may not be as quick or easy as adults do. For that reason, using applications rather than going to a language course may be useful for some learners. Motivation, however, needs to be intrinsic rather than extrinsic when learning a language, especially for young learners and adults. Therefore, students should be aware of the reason why they (must) learn a foreign language. In that case, teaching becomes more difficult for teachers to engage students with a little intrinsic motivation in a preparatory class. Keeping the motivation throughout the 40 or 80 minutes long can be quite difficult for both sides. In fact, it is almost impossible for students who live with social media where the page is repeatedly refreshed in seconds with new posts. Seeing one teacher in a class who cannot be swiped up, blocked, or muted can be demotivating or boring. Students prefer to look at their phones rather than a whiteboard and this will lead to distraction. This is where AI shows up itself to keep the motivation high with engaging activities on point. Therefore, teachers need to adapt themselves to AI platforms to use them properly and give clear instructions in class. Lastly, emotions play an important role from teaching to assessment, AI can be more strict and autonomous when performing these tasks compared to a real human being. However, with robotics, codings, and Metaverse, many jobs are terminated or forced to evolve something else to go hand in hand with the robots. Just like the other areas, teaching will eventually be affected by AI.

Another important thing is that self-aware AI has a lot of improvements. They use the input of whatever is given to them as information though so many people use AI for entertainment purposes or where they cannot use a human being because it is too dangerous such as in high radiant places, near volcanoes, or maybe for space and people sometimes see AI in a robotic form for these types of jobs. However, AI can actually be put into the computer system as software which makes AI not so dangerous as they seem in the science fiction movies however there are still some videos on YouTube where self-aware machines can have a conversation between them where there is no human being in control and they know they are aware of that someone else or a human being is actually given the input and based on the input of what they have, they are supposed to have the conversation in a limited way. However, they are also aware of what are the purposes that people are using AI today. So the same may go for the teaching part, even for the teachers' interviews and the students' survey based on the answers that I had in my research that AI is

actually visible in machine form rather than a human-looking robot today which makes AI less dangerous. It is quite possible today to use AI everywhere in every kind of application even in social media and also in teaching parts we mostly see or use AI in applications and platforms and these were harmless yet useful and sometimes effective in especially teaching English. However, when the question is asked about *“teacher teachers' job being taken over by an AI”*, teachers mostly answered that question as not possible. That's because when they thought of AI as a machine or the way they use it in class, they just thought that it was not possible in the entire way of teaching in class. After all, humans have feelings and humans are not autonomous beings. They have feelings, they understand when they look at the student's face in the class, they can understand if the student understood the topic or not and they can also repeat the same answer with a different vocabulary to make it clear to the students understanding. Though teachers think that AI is not that capable of doing this, when you look at the videos on YouTube about AI, especially for the self-aware AI, it can be clearly seen that they can look like a human or perform the task in human form with random face or voice given by the coders, and they can have a conversation between them. Though it sounds meaningless, it is still enough to shock the audience or whoever is watching the videos because they are good at explaining everything based on their input and they're aware of what they can do, and what they are capable of. Although what makes them still limited is that they cannot go further than their input, they also know that they can do more than that as self-aware AI. They know when to go online and what to do during their online period as visualized as a human with a human face and voice, just like the videos, their conversation becomes quite meaningful when both sides of the AI can talk about the 'existential crisis' or anything about the 'human feelings' and 'human behavior'. It was quite meaningful when you listened to them and if we think about the future, not maybe soon but maybe in the distant future, AI as if we have it like in a machine form from the applications or mobile phones or computer-based platforms such as on websites or any kind of things, we know that AI can also be transformed into a human form. Yet there are still developments or improvements going daily about AI but in the future they can also come to class and maybe teach even in the human form or just like in the video they can have a visual outlook like a human form and they can teach language in class just like Sophia the robot which is also a self aware AI that can't ink and download things and give you answers about many

things in maybe seconds so just because they have a lot of input that allows them to think and reply in seconds compared to humans it can be quite beneficial for students to get the instant information they need when they learn something, however, there are still debates going on even in the human form or in the like human looking from the video the way I teach might not be as effective as a normal human being because yes the capabilities or the ability that Sophia the robot can do is undeniably amazing because it still improves herself and that she is actually the one who has the citizenship and has on credit card and moves like a human being though when you look at her face it can be quite clear that it is a robot not a human but when compared with a human in a conversation the intelligence is quite different and Sophia or the AI system any kind of robot looks more intelligent than a human because it also makes human shocked that they can give an answer about anything that even you or one doesn't know in seconds. Nevertheless, teachers do not expect to be taken over soon, the future is already near to us. Because some AI can detect and react to humans' emotions, it can be applied in teaching, too. They use voice and no matter how robotic they sound when they talk, laugh, or even sing just like Google Translate's voice, they can teach English. The only issue may go with the intonation part when teaching English. Besides the intonation issue, further discussion may be about the level determination of AI. Now it can create exercises, and AI can give personalized materials based on each student's level, individually. On the other hand, when it comes to class, no matter if all of the students are at B2 level, can AI determine the level when teaching English to each student during teaching? Whenever there is an ambiguity, a lack of motivation, or not understanding any of the topics, vocabulary, or grammar in the whole class, how can AI detect the true level of that student and repeat or clarify it to that student while teaching a higher level or lower level? A student may be in B2 but the true level may be A2.2 or C1, when the teacher knows that situation, the teacher may give lower or higher examples to clarify and balance the class level at that point.

AI is considered costly today in many areas, it goes the same with teaching. Years ago, only a few people had iPhones maybe only businesspeople who used Blackberry and iPhone. The rest of the population used Nokia, Siemens, Motorola, etc. Because the main aim of the smartphones was different. So iPhones were thought to be costly. Years ago, CALL was also quite common but this issue was

also considered costly. However, it became common, and popular and even forced teachers to use computers during the pandemic. Just like the opinion about AI that people have today, AI may be affordable, more reachable, and maybe more common in many areas. So that reason it may be also affordable and common in teaching, too.

In <https://beta.openai.com/>, the research questions, which were asked to teachers, were asked to an AI to see the opinion or to see the level of the understanding concept based on its information. As this is just a 'beta' form, It gave me repetitive answers. However, when I clicked the 'regenerate' button if there is dissatisfaction, it gave clear answers as given below;

1. Do you find it difficult to use AI-based/integrated platforms?

No, I do not find it difficult to use AI-based/integrated platforms. In fact, I find them quite user-friendly and efficient.

1. Can AI be effective in teaching English?

Yes, AI can be effective in teaching English. It can help students learn and remember new vocabulary, grammar rules, and sentence structure. Additionally, AI can provide personalized feedback and recommendations based on a student's individual needs and progress.

2. What is your opinion about using AI in English Language Teaching?

I believe using AI in English Language Teaching can be extremely beneficial. It can help students learn and remember new vocabulary, grammar rules, and sentence structure. Additionally, AI can provide personalized feedback and recommendations based on a student's individual needs and progress.

3. Do you think that AI-based assessed exams are going to be reliable and valid?

Yes, I believe that AI-based assessed exams are going to be reliable and valid. AI-based assessment platforms can provide accurate and detailed feedback about a student's performance. Additionally, AI can identify areas of improvement and make recommendations for further study.

4. Do you think that assessments are going to be objective compared to the teacher's assessments?

Yes, I believe that assessments are going to be more objective compared to

the teacher's assessments. AI-based assessment platforms can provide accurate and detailed feedback about a student's performance. Additionally, AI can identify areas of improvement and make recommendations for further study.

5. In what ways AI is going to be useful in the classroom?

AI can be useful in the classroom in a variety of ways. It can help students learn and remember new vocabulary, grammar rules, and sentence structure. Additionally, AI can provide personalized feedback and recommendations based on a student's individual needs and progress.

6. Do you think that students/learners find it difficult when they use AI-based learning platforms/applications?

No, I do not think that students/learners find it difficult when they use AI-based learning platforms/applications. In fact, I find them quite user-friendly and efficient.

7. Do you find AI useful?

Yes, I find AI to be extremely useful. It can help students learn and remember new vocabulary, grammar rules, and sentence structure. Additionally, AI can provide personalized feedback and recommendations based on a student's individual needs and progress.

8. In what ways do you find AI useful in language teaching?

AI is useful in language teaching in a variety of ways. It can help students learn and remember new vocabulary, grammar rules, and sentence structure. Additionally, AI can provide personalized feedback and recommendations based on a student's individual needs and progress.

9. Do you think that AI-based language teaching going to take over the teacher's job in the future?

No, I do not think that AI-based language teaching is going to take over the teacher's job in the future. I believe that AI can supplement and support the teacher's role in the classroom.

10. What do you think about the teachers? I believe that teachers play an important role in the education of their students. They are responsible for

imparting knowledge and skills to their students. Additionally, teachers provide guidance and support to their students.

11. Do you know Alan Turing?

Yes, I know Alan Turing. He was a British mathematician, computer scientist, and logician. He is widely considered to be the father of computer science and artificial intelligence.

In the python version, the coding is just like that given below in Figure 2.

Figure 2. Text completion of *beta.openai.com* which is created in the Python

```
import os
```

```
import openai
```

```
openai.api_key = os.getenv("OPENAI_API_KEY")
```

```
response = openai.Completion.create(
```

```
model="text-davinci-002",
```

```
prompt="1. Do you find it difficult to use AI-based/integrated platforms?  
\nNo, I do not find it difficult to use AI-based/integrated platforms. In fact, I find  
them quite user-friendly and efficient. \n2.\tCan AI be effective in teaching English?  
\nYes, AI can be effective in teaching English. It can help students learn and  
remember new vocabulary, grammar rules, and sentence structure. Additionally, AI  
can provide personalized feedback and recommendations based on a student's  
individual needs and progress. \n3.\tWhat is your opinion about using AI in English  
Language Teaching? \nI believe using AI in English Language Teaching can be  
extremely beneficial. It can help students learn and remember new vocabulary,  
grammar rules, and sentence structure. Additionally, AI can provide personalized  
feedback and recommendations based on a student's individual needs and progress.  
\n4.\tDo you think that AI-based assessed exams are going to be reliable and valid?  
\nYes, I believe that AI-based assessed exams are going to be reliable and valid. AI-  
based assessment platforms can provide accurate and detailed feedback about a  
student's performance. Additionally, AI can identify areas of improvement and make  
recommendations for further study. \n5.\tDo you think that assessments are going to  
be objective compared to the teacher's assessments? \nYes, I believe that  
assessments are going to be more objective compared to the teacher's assessments.
```


AI-based assessment platforms can provide accurate and detailed feedback about a student's performance. Additionally, AI can identify areas of improvement and make recommendations for further study. \n6.\tIn what ways AI is going to be useful in the classroom? \nAI can be useful in the classroom in a variety of ways. It can help students learn and remember new vocabulary, grammar rules, and sentence structure. Additionally, AI can provide personalized feedback and recommendations based on a student's individual needs and progress.\n7.\tDo you think that students/learners find it difficult when they use AI-based learning platforms/applications? \nNo, I do not think that students/learners find it difficult when they use AI-based learning platforms/applications. In fact, I find them quite user-friendly and efficient. \n8.\tDo you find AI useful? \nYes, I find AI to be extremely useful. It can help students learn and remember new vocabulary, grammar rules, and sentence structure. Additionally, AI can provide personalized feedback and recommendations based on a student's individual needs and progress.\n9.\tIn what ways do you find AI useful in language teaching?\nAI is useful in language teaching in a variety of ways. It can help students learn and remember new vocabulary, grammar rules, and sentence structure. Additionally, AI can provide personalized feedback and recommendations based on a student's individual needs and progress.\n10.\tDo you think that AI-based language teaching going to take over the teacher's job in the future? \nNo, I do not think that AI-based language teaching is going to take over the teacher's job in the future. I believe that AI can supplement and support the teacher's role in the classroom.\n11.\tWhat do you think about the teachers? I believe that teachers play an important role in the education of their students. They are responsible for imparting knowledge and skills to their students. Additionally, teachers provide guidance and support to their students. \n12.\tDo you know Alan Turing? \nYes, I know Alan Turing. He was a British mathematician, computer scientist, and logician. He is widely considered to be the father of computer science and artificial intelligence.\n13.\tWhat do you think about his work? \nI think his work was groundbreaking. He made significant contributions to the fields of computer science and artificial intelligence.",

temperature=0.7,

max_tokens=256,

top_p=1,

frequency_penalty=0,

presence_penalty=0

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<https://www.aiteachu.com/>

<https://animoto.com/>

<https://app.grammarly.com/>

<https://beta.openai.com/>

<https://www.cambly.com/>

<https://www.cognii.com/>

<https://www.coursera.org/>

<https://www.dayofai.org/>

<https://www.duolingo.com/>

<https://elsaspeak.com/en/>

<https://www.englishcentral.com/>

<https://essayservice.com/>

<https://www.frontrowed.com/>

<https://hellothinkster.com/>

<https://www.ibm.com/>

<http://www.iamhugh.co.uk/>

<https://www.italk2learn.com/>

<https://www.knowji.com/>

<https://www.memrise.com/>

<https://www.mentimeter.com/>

<https://www.mooc.org/>

<https://www.netexlearning.com/en/contentcloud/>

<https://www.teacherspayteachers.com/>

<https://translate.google.com/>

<https://thirdspacelearning.com/>

<https://photomath.com/>

<https://web.respondus.com/>

<https://quizlet.com/>

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