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Assisting the English Skills of Pre-Service Flight Attendant Students in Aviation through the Use of Artificial Intelligence (AI) Application Tools

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ABSTRACT

The technological advancement has very rapidly increased the use of Artificial Intelligence (AI) application tools to increase students' English skills, especially speaking skill fluency. With the high demand and increasing importance of speaking skill in flight attendant occupational duties in a workplace of airline industry, this research aims at exploring and analyzing the use of AI application tools to enhance English-speaking skill of English for Specific Purpose (ESP) students majoring in flight attendants employed during the in-house training period. This study employed a qualitative research design, a case study. The study involved students majoring in flight attendants at Angkasa Avia Surabaya, an aviation training center, with purposive sampling technique. The data were collected through semi-structured interviews as the main data collection and field-note classroom observation as supporting data. The data were analyzed using three activities: data reduction, data display, and drawing conclusion. The result of the study showed that the students used various AI application tools and they were considered as important tools that could help increase the students' speaking skill significantly. This paper also offers recommendation for the students to explore more and maximize the use of AI application tools in enhance their speaking skill as the most needed skill for flight attendants to master in a limited time during in-house training.
Keywords: Artificial Intelligence (AI); enhance; speaking skill; ESP; pre-service flight attendants

INTRODUCTION

The use of English in aviation started from the Chicago Convention in 1944, which made English as the official language of international air travel or of international air navigation. The main reason is that English provides a universal standard for communication. It means that using one common language helps everyone understand each other better and reduces the risk of mistakes and misunderstanding during important situations. This standardization helps avoid confusion that might cause accidents. Because of this, many aviation English training programs are held for pilots and Air Traffic Controllers (ATCs) to help them improve their English skills. In 2008, the International Civil Aviation Organization (ICAO) introduced a rule called the ICAO language proficiency requirement. This rule requires pilots and ATCs to reach at least level 4 in English so that everyone in the aviation industry can communicate clearly and use the same standard of English (Zolfagharin & Khalilpour, 2015). In line with this, aviation journals show that the most training programs are designed for Air Traffic Controllers (ATCs) and pilots. The language they need to use is called Aviation English, which mainly includes radiotelephony (radio communication) and operational procedures, how things are done during flights (Liang, 2010). Additionally, English has gained prominence as a global language due to its extensive utilization in international organizations (Syafiyah et al., 2021).

In general, English-speaking skill occupies a central position in academic, professional, and social contexts, which means that the ability to speak English is very important in school or college, work, and everyday life. Nowadays, in this era of globalization, English speaking skill is not only considered as an additional skill, but also as a crucial key to success in a wide variety of fields such as education, business and corporate sector, technology and IT, finance and economics, 4) tourism, travel, and hospitality, healthcare, engineering & manufacturing, government and international

relations, and media, arts and entertainment. Specifically, in the aviation industry, speaking English is not just an extra skill an airliner or employee should have, but it is a major key to successful verbal communication. This idea is supported by Bestari et al. (2024), who state that speaking is one of the most important and essential skills in English. Moreover, speaking skills also plays an essential role in learning and teaching a second language. The main purpose of speaking skills is to convey or share ideas with others so that other people can understand what the speakers mean. Furthermore, speaking skill refers to the ability to use language as a means of communication, either through words usually called "verbally" or through other ways called "non-verbally", in different situations. Speaking skill is one of the four main English language skills, along with reading (the ability to read), writing (the ability to write), and listening skill (the ability to listen).

In Indonesian context, where English becomes a second language, students face various challenges in developing and improving their English language skills. In line with this, Robah and Anggrisia (2023) reveal that students face various challenges in developing and improving their English language skills. However, despite the comprehensive English education provided, mastering the language, particularly speaking, remains a challenge for Indonesian university students. Proficiency in vocabulary, grammar, pronunciation, fluency, and comprehension is required for effective English speaking, and deficiencies in these areas can hinder students' ability to express their thoughts effectively or understand others' ideas (Sayuri, 2016). Although the government has provided comprehensive English education, and the students have received extensive English instruction, in fact, many Indonesian students still struggle to achieve English language mastery, especially speaking skill, which remains a challenge for most of the students. Effective oral communication requires the ability to master vocabulary, grammar, pronunciation, fluency, and comprehension. Weaknesses in any of these components can limit and hinder students' ability to express their ideas and thoughts clearly or understand others effectively (Sayuri, 2016).

Numerous studies dealing with the teaching English as second language (ESL) have underscored the psychological challenges students encounter when engaging in English-speaking activities. In other words, a growing body of research has highlighted the anxiety and fear that the students often experience when learning English especially speaking English. There are many students who feel apprehensive and anxious about making mistakes or receiving negative comments or evaluation, which often leads to feelings of self-consciousness and reduces classroom participation (Leong & Ahmadi, 2017). Similarly, Littlewood (2007) mentions that the fear and the anxiety of being ridiculed and laughed at for incorrect pronunciation or grammatical mistakes further intensifies these worries. Moreover, Baker and Westrup (2003) also reveals that the students may find it difficult to understand the teacher's instructions or questions, which in turn hinders their active participation in English-speaking activities.

In learning English as second language, Indonesian students especially pre-service flight attendant students face various challenges in developing and improving their language skills. One key factor is their limited knowledge of pronunciation, grammar, vocabulary, fluency, and comprehension. Hadijah (2014) emphasizes that insufficiency in these areas is a major contributor to students' difficulties in speaking English. Similarly, Doris and Jessica (2007) highlight that linguistic problems, such as weak grammar, limited vocabulary, and inaccurate pronunciation, play a significant role in these challenges. In addition to linguistic factors, psychological aspect, such as low self-confidence and anxiety, also negatively affects students' speaking ability (Fitria et al., 2015). The previously-mentioned challenges manifest in various ways, including difficulties in creating an appropriate environment for practice, a lack of ideas and limited vocabulary, fear of making mistakes, and overall lack of confidence. Pronunciation and grammar problems further worsen these problems. To address these obstacles, students can engage in extensive reading, observe native speakers, write regularly, and practice speaking consistently. Utilizing various learning resources, including online media on the internet and Artificial Intelligence (AI) tools, can also enhance the English-speaking learning process and help students build both competence and confidence.

The term artificial intelligence (AI) was firstly constructed in 1956 by John McCarthy **(**McCarthy et al., 2006**).** Artificial Intelligence (AI) refers to a broad field of science involving computer science, psychology, philosophy, linguistics, mathematics, and others. Intelligent machines as applications of AI contribute to changing the roles played by schools, teachers, and learners. They also change the traditional and virtual patterns of interaction in the educational field. Both teachers and learners are dealing with interactive machines to share educational experience, and achieve the required objectives. These machines offer interactive educational platforms that conduct discussions with the students and respond to their questions and reactions, solving traditional classroom problems such as paying attention and motivation, caring for individual differences among learners, and supporting those with special needs. With feedback, improving the levels of student achievement, and developing positive attitudes towards teaching/learning, they also provide solutions to the problem of interaction in large classrooms. These aspects are directly and positively affected by employing AI applications in the teaching/learning process (Dickson, 2017).

Moreover, another advantage of employing AI in teaching learning process is that AI also allows learners to practice language skills and provides feedback for guidance. According to Barnes-Hawkins, (2016), AI has some programs which have language drills that give training in communication through using language skills to guarantee that learners reach proficiency levels. It is strengthened by Radwan, (2017) who indicates that AI can be used to overcome many of the difficulties of teaching/learning English: using information retrieval techniques to build the ability to comprehend reading passages; employing machine translation to develop students' translation skills; using automatic speech recognition techniques to learn correct pronunciation, using text to-speech techniques for blind and visually impaired students; using open digital language dictionaries to enrich the vocabulary of the student; and using intelligent programs to augment speaking skills for English learners; implying a writing. Some other previous studies about the use of AI have been conducted, such as Malik et al., (2019) who reveals that AI has given great contribution to the field of education. Wang (2019) mentions that AI can employ a novel method in English teaching and learning due to its good environment for engaging English learning.

Furthermore, Artificial Intelligence (AI), particularly in teaching English for pre-service flight attendant students in aviation, offers promising opportunities to overcome long-standing challenges and create new possibilities for student engagement and success. Tjahyanti, (2022) states that in this competitive era, there are more innovations, especially in the field of education, many teaching and learning activities involve AI to improve the quality of learning. In line with this, Rane et al., (2023) state that some of the key areas where AI is being applied include: Personalized Learning, the integration of Artificial Intelligence (AI) which has brought about a paradigm shift and paved the way for personalized learning experiences that meet individual needs, learning styles and preferences of students**.** Generally, in the context of English Language Teaching (ELT), AI-powered applications have become increasingly popular as they provide personalized learning experiences, real-time feedback, and interactive features that enhance the language learning process; such as Duolingo (focusing on vocabulary, grammar, and pronunciation), Grammarly (a writing assistant helping improve grammar, punctuation, style, and tone), Babbel (focusing on vocabulary and grammar), HelloTalk (helping improve speaking skills, communicating with English speakers via text, voice, and video), DeepL, Chat GPT, Elsa Speaks, and Gemini, etc.

In acquiring speaking skills, the most needed skills for flight attendants of aviation, some previous studies have found that people are unable to master a language unless they have numerous chances for substantial repetitions. Spoken language and opportunities to generate the language in meaningful activities give critical practice for internalizing the language. The students can replicate and practice to pronounce the words from their teachers' expressions (Leong & Ahmadi, 2017). Therefore, the students should learn and practice their speaking more often inside and outside of classroom, thus they can acquire many words and enhance their speaking ability. Further, the teaching methods used by the lecturer seemed less appropriate for all of the characteristics of the students. The lecturer taught speaking skills using the same methods such as; grammar translation method, discussion, interview,

role-play, presentation, etc. These methods were effective enough to improve the students' speaking skill ability, but they were deemed less appropriate for most of the students who still had low English proficiency level. Moreover, the time allotment to learn English in face-to-face with the teacher in the classroom was limited. During in-house training program, English class was only given fourteen (14) meetings with the allocation of two hours in each of the meeting.

It's quite common for pre-service flight attendants or aviation students to encounter difficulties in mastering English in a professional context, especially because the language requirements in aviation are highly specific. The challenges they faced were, for instance, 1) composing dialogue for scenarios for role-play activities, in which the students got difficulties to immerge ideas how to concept the conversation, practicing real-life scenarios, using appropriate phrases and dialogue structures. 2) Finding the right aviation vocabulary and terminology. Since aviation has its own set of specialized vocabulary and specific technical terms that students are not familiar with, the students frequently found it challenging to remember and use correctly. 3) Pronunciation, accent, and intonation in which the students struggled with certain sounds, stress patterns, and intonation, which effected their clarity and fluency. Consequently, the lecturer had instructed the students to use technology or applications to improve their English skills, especially speaking ability, outside the classroom. Therefore, the lecturer let the students choose the most suitable and interesting applications that could encourage the students' motivation as well as interest to improve their speaking skill ability as an independent or self-learning outside the classroom.

As previously having been mentioned that many research on the use of AI have been conducted by numerous researchers that focused on English language teaching (ELT) field, particularly the studies on the use of AI to help increase students' speaking skills. As evidence, the study on the use of AI applications such as EAP Talk, IELTS Liulishuo and Yidian English was conducted by Zou et al in 2023 to increase their university students used an experimental research design. They revealed that using AI application was effective in increasing students' speaking ability. Next, Junaidi et al. (2020) employed a quasi-experimental research design. They used Lyra virtual assistance to improve the students' speaking skills. The result of their study showed that AI application could enhance the students' speaking skills. Furthermore, Zhou et al. (2020) added that the students had positive attitude towards the use of AI application and preferred to use AI such as Chivox, iFlytek and Liulishuo for IELTS applications in improving their speaking skills. In summary, it can be concluded that the use of AI applications in English teaching and learning is effective to increase students' English skills, especially speaking ability, since the students can practice English anywhere and anytime, with or without the presence of teacher.

Regarding to the conditions mentioned above, this study encourages the use of AI applications in enhancing the problem experienced by students in learning English as second language (ESL), particularly speaking skills, which were less interesting, and monotonous. Furthermore, these AI applications can also track the students' learning progress and evaluate their English speaking practiced by giving instant feedback. Although several previous researchers have conducted researches on the implementation of AI applications in improving speaking skill at high schools and university level, but there is still limited study investigating the implementation of AI in enhancing speaking ability specifically on ESP students particularly majoring in a flight attendant of aviation. Based on the conditions above, this study aims at:

1) Analyzing how AI technology can be optimized as a tool to enhance pre-service flight attendant students' English-speaking skills.

2) Exploring AI Tools: Examining various AI applications and technologies or other AI-based applications that might be used by pre-service flight attendant students in assisting English speaking skills.

METHODS

Since the objective of this study is to analyze how AI technology can be optimized as a tool to enhance students' English-speaking skills and explore AI Tools: examining various AI applications and

technologies that might be used by students in assisting English speaking skills, a qualitative case study is the most appropriate and effective method to address these research questions. A qualitative research design has the characteristics of a systematic, accurate, and factual description of the facts, properties, and relationships between the phenomena being studied (Furidha, 2023). Furthermore, case study allows researcher to focus in-depth on a "case" and to retain a holistic and real-world perspective (Yin, 2018). Further, case study seeks to provide a thorough documentation and exploration of the phenomenon under investigation (Duff, 2014). Thus, this method will be suitable to be employed as case study that is able to provide in-depth exploration of social phenomenon.

Participants

The study involved students majoring in flight attendants of aviation at Angkasa Avia Surabaya aviation training center. There were 5 students at the age of 19 to 22. To researcher, the number of the participants employed in this study was ideal. This is in line with Bartholomew et al, (2021) who state that the ideal sample size for interviews is four to ten, but for student projects can have as many as three to six participants. Although the number of participants may seem limited, it can provide useful insights and viewpoints from participants who fulfil the criteria.

The study chose 5 students by using purposive sampling technique. This purposive sampling technique was employed to target students frequently utilizing AI application tools to enhance their speaking skill. Before conducting a purposive sampling, the researcher conducted a survey by distributing questionnaires. Then the information from the questionnaire was analyzed and measured by focusing on their attitudes, perceptions, motivations, and reactions (Suwartono, 2014). Therefore, the purpose of the survey was to find participants who engaged with AI application tools. Those who met the criteria were categorized as potential participants and selected in accordance with the requirements for this study.

Instruments

The instrument used in this study was a semi-structured interview as a main data in data collection technique and fill-note observation as supporting data. This technique gains in-depth information about how AI applications or other AI-based applications can be optimized as a tool by pre-flight attendant students to enhance English-speaking skill. A purposefully chosen students were pre-service flight attendants at Angkasa Avia Surabaya aviation training center. To gain data, an interview guide with open-ended questions was used. This technique allowed researcher for flexibility and in-depth exploration of each participant's different preference in the use of AI application tools.

Data Analysis Procedures

In this study, the data were analyzed using three main activities: data reduction, data display, and drawing conclusion. Data reduction was the first data processing by selecting the data from the field notes (transcriptions) in order to be focused, simplified, separated, and transformed. By following a series of steps, the researcher transcribed the information collected from interview activity. First, the researcher listened to the recording of the interview, and the second activity was to transcribe the answers using Microsoft Word. The second step was data display, where the researcher presented the interview transcripts in tabular form then will analyze them. And the last stage was drawing of verifying conclusions. In this stage, the researcher summarized the answers from all the interviewees then summarized the results.

RESULTS AND DISCUSSION

The Use of AI Application Tools during In-house Training Period

Interviewee 1 (I_1) used Duolingo and Chat GPT to prepare for English speaking class and practice to familiarize English daily real-life conversation of aviation field. She used Duolingo to translate sentences from Indonesian to English and correct the sentence structures. It enabled her to use everyday language skills especially using aviation vocabulary and terminology, which flight attendants

often need to communicate in various scenarios and help learn general conversational English. Further, she also used Chat GPT to find insights or ideas on how to make English conversation or dialogues in certain real-life scenarios (It was generally done when her English lecturer assigned the students to arrange English conversation that must be practiced in roleplay activity).

> *"I often use Chat GPT and Duolingo application tools to get an insight or an idea on how to make dialogue or conversation where the setting is in aviation context; such as giving flight procedure, emergency situations, safety demonstration, boarding announcement, etc.) These applications really help me and make learning English more fun, easier, and meaningful."*

Interviewee 2 (I_2) used SiVi to boost his speaking skills. He mentioned that the features provided by SiVi were great and helpful. One of the features offered an audio exercise good for students to learn pronunciation since the audio used native speakers. This helps students of flight attendants of aviation develop powerful understanding of different accents and pronunciation, which played significant roles for effective communication with passengers from all of the world.

> *"Usually, I use SiVi when I have assignment to make conversation practice. I learn by listening and imitating how the words, phrases, and sentences are pronounced. I also learn difficult vocabulary or specific aviation terms, especially English aviation vocabulary and terminology, which are sometimes or even often difficult for me to know and pronounce. So, SiVi helps solve my problem. Besides, it also gives a direct correction. If there are pronunciation errors that are not in accordance with the given sentences, then it will show the errors by giving the incorrect words, phrases, or sentences with coloured red."*

Interviewee 3 (I_3) used many kinds of AI platforms such as Google Translate, virtual assistants or chatbots and sometimes Perplexity to increase vocabulary enrichment and find out some reputable aviation journals to deepen understanding and knowledge about aviation especially flight attendant subject-matter-areas. Not only does a google translate give translation words, but it also gives voice recognition as well as convert voice into the text and then translate it.

> *"I use technology AI such as Google Translate, virtual assistants or chatbots and sometimes Perplexity to train my vocabulary enrichment and find some reputable aviation articles or journals to read in order to gain deeper understanding and comprehensive knowledge about aviation or airline industry especially flight attendant subject-matter areas. Google Translate is helpful to show me the correct pronunciation. So, when I do not know a word then I open google translate and type the word and also click the microphone button to know the pronunciation.*

Interviewee 4 (P_4) used several AI tools such as Chat GPT, Google Translate, ELSA, Duolingo, etc. but the most frequently used AI tool that she liked to use were Google Translate, when composing an essay or writing scripts for English speaking practice and Duolingo, which she almost used to help her construct conversation script before she practiced in simulating real-life situations, a role-play practice activity.

> *"I like using Duolingo because it includes situational dialogue practice, where my friends and I can engage in simulated conversations. For flight attendants, this is useful for practicing common in-flight scenarios, such as greeting passengers, offering service, handling complaints, or providing safety instructions."*

Interviewee 5 (I5) preferred to use ELSA which she thought the most comfortable for her and helpful. The features that ELSA has are varied and interesting, such as pronunciation and accent training through speech recognition, which is very good for students to learn clear and intelligible English pronunciation since flight attendants need to communicate with passengers from diverse

backgrounds, so their pronunciation must be accurate and it also provide vocabulary, phrases, or sentences that are relevant to the profession as flight attendants.

> *"I use the ELSA application because it's the best AI tool for me to learn English. My big weakness is in pronunciation, so I think ELSA is the best solution to overcome my problem. I learn pronunciation and accent a lot from this app. Besides, it also gives real-time feedback, which allows me to correct my mistakes in pronouncing words or phrases and intonations. I also learn as much as new vocabulary and terms from ELSA since it can provide specialized vocabulary, phrases and sentences related to in-flight services, emergency situations, and customer interaction, and they are relevant to my profession later on for example "Please fasten your seatbelt." or "May I offer you a drink or food?".*

Table 1

The Impacts of AI Application Tools on Students' Speaking Skills

Interviewee	Used AI Application Tools	Results (Opinions)
I_1	Chat GPT & Duolingo	Duolingo and Chat GPT help her increase her English-speaking skill ability and significantly improve English components, especially pronunciation, vocabulary and grammar.
I_2	SiVi	Using AI tool such as SiVi can boost his speaking skills. He mentioned that the features provided by SiVi were helpful. One of the features offered an audio exercise which was good for him to learn pronunciation, intonation, as well as English accent since the audio used native speakers. This helps him, as pre-service flight attendant of aviation, develop powerful understanding of different accents, intonation, and pronunciation, which plays significant roles for effective communication with passengers from all of the world.
I_3	Google Translate, Perplexity, and virtual assistants or chatbots	By using AI application tools such as Google Translate, virtual assistants or chatbots and sometimes Perplexity can help train and enlarge vocabulary enrichment and find some reputable aviation articles or journals to read in order to gain deeper understanding and comprehensive knowledge about aviation or airline industry especially flight attendant subject-matter areas.
I_4	Google Translate, Duolingo, and DeepL	The use of Google Translate, Duolingo, and Deepl can help translate tasks related to aviation communication accurately, and quickly. It provides very powerful translations based on the aviation context, which is essential for accurate language use in the aviation industry
I_5	ELSA	ELSA helps increase pronunciation accuracy ability, enlarge vocabulary enrichment, and elevate listening skills, providing appropriate intonation, different accents and speeds of speech, that can improve overall listening skills.

Interviewee 1 (I_1) mentioned that AI application tools such as Duolingo and Chat GPT help her English-speaking skill ability and it has significantly improved, especially in pronunciation, vocabulary and grammar matters.

"AI application tools such as Duolingo and Chat GPT have greatly improved my speaking skills in terms of pronunciation, vocabulary, and grammar matters."

Interviewee 2 (I_2) revealed that practicing speaking English using AI helped his English skills especially speaking and listening and English components such as vocabulary, pronunciation, and grammar signifyingly improved. SiVi application tool provides structured English lessons that involve various topics such as vocabulary, grammar, sentence construction, and practical phrases. For him, the lessons designed are interactive and engaging, and give him practice exercises to simulate real-world communication skills.

"Practicing speaking using SiVi can help improve my English skills, especially my frequency, vocabulary, and grammar. Before I use SiVi, my English is bad and my grammar is also messy. But after using AI application like SiVi, I feel I am more confident to speak English because I get a lot vocabulary and grammar practice."

"Usually, I use SiVi when I have assignment to make conversation practice. I learn how to pronoun every single word correctly and accurately. Especially English aviation vocabulary and terminology, which are sometimes or even often difficult for me to pronounce. So, SiVi helps solve my problem. It also gives a direct correction. If there are pronunciation errors that are not in accordance with the given sentences, then it will show the errors by giving the incorrect words, phrases, or sentences with coloured red."

Interviewee 3 (I_3) stated that by using AI application tools like Google Translate, virtual assistants or chatbots and sometimes Perplexity, she could increase her vocabulary enrichment. Further, AI-powered platforms can provide personalized and interactive language training, helping pre-service flight attendants learn aviation-specific terminology more efficiently. They can simulate real-world situations where flight attendants interact with passengers, using industry-specific language and phrases. Similarly, another AI tool such as virtual assistants or chatbots can provide real-time support or real-time assistances during flights, helping flight attendants understand and recall aviation terminology, safety protocols, and customer service phrases quickly. Besides, AI tool also can provide updating terminology, in which it can also help pre-service flight attendants stay up-to-date with the evolving terminology in aviation. It can track changes or new terms introduced in the industry, ensuring that flight attendants are always familiar with the latest language standards and regulations.

"I use AI application tools such as Google Translate, virtual assistants or chatbots and sometimes Perplexity to train my vocabulary enrichment and find some reputable aviation articles or journals to read in order to gain deeper understanding and comprehensive knowledge about aviation or airline industry especially flight attendant subject-matter areas."

Interviewee 4 (I_4) said that several AI platforms such as Chat GPT, Google Translate, ELSA, Duolingo, Deepl, etc. are very helpful for her. However, among those many AI application platforms, she thought that there were three tools that she frequently used the most - Google Translate, where she uses it when composing an essay or writing scripts for English speaking practice, Duolingo and Deepl, which she almost used to help her construct conversation script before she practiced in simulating real-life situations in front of the class.

"I like using Duolingo and Deepl because they include situational dialogue practice, where my friends and I can engage in simulated conversations. For flight attendants, this is useful for practicing common in-flight scenarios, such as greeting passengers, offering service, handling complaints, or providing safety instructions. Deepl helps a lot translate tasks related to aviation communication"

She gained a lot of improvement in her speaking skill ability especially in vocabulary and pronunciation aspects. In terms of vocabulary aspect, there is a huge increased vocabulary and aviation terminology used in aviation industry. In terms of pronunciation and fluency aspect, she knew a lot how to pronounce the words accurately. By using *Duolingo*, she acquired understanding on how to accurately pronounce words a lot better.

> *"I used to speak English fluently but less confidently before just because of the pronunciation of vocabulary that I don't know or I am not sure to pronounce. After using Duolingo application, I learn and know that some vocabulary that I spoke before were mispronounced. Now I speak more confidently and fluently."*

In terms of understanding context**,** DeepL provides very powerful translations based on the aviation context, which is essential for accurate language use in the aviation industry. For example, it can distinguish between different meanings of a word based on its use in a specific context (e.g., "boarding" as an activity versus "boarding" as a location), helping flight attendants grasp precise language usage. Moreover, dealing with the safety and emergency vocabulary, in aviation, the language used during emergencies is highly specific and must be clear and unambiguous. DeepL can help flight attendants learn these crucial terms by offering context-based translations of phrases related to passenger safety, emergency protocols, and announcements.

Interviewee 5 (I_5) preferred to use ELSA which she thought the most comfortable for her and helpful. She said that the features that ELSA had were varied, engaging and interesting, such as pronunciation and accent training through speech recognition, which was very good for her to learn clear and intelligible English pronunciation since later as a flight attendant, she needed to communicate with passengers from diverse backgrounds, so her pronunciation must be accurate and appropriate. For her, ELSA also provided vocabulary, phrases, or sentences that were relevant to the profession as flight attendants that she thought it was great to study and could prepare herself in a real-work setting.

> *"I use the ELSA application because it's the best AI tool for me to learn English. My big weakness is in pronunciation, so I think ELSA is the best solution to overcome my problem. I learn pronunciation and accent a lot from this app. Besides, it also gives real-time feedback, which allows me to correct my mistakes in pronouncing words or phrases and intonations. I also learn as much as new vocabulary and terms from ELSA since it can provide specialized vocabulary, phrases and sentences related to in-flight services, emergency situations, and customer interaction, and they are relevant to my profession later on for example "Please fasten your seatbelt." Or "May I offer you a drink or food?".*

Based on the findings previously mentioned, in terms of the use of AI tools used to enhance speaking skills of ESP students majoring in flight attendants of aviation, all interviewed participants stated that they use AI application tools which are varied depending on their own personal preferences. The AI application tools help them increase their English skills especially speaking skills which flight attendants need the most in doing their occupational duties later on. In learning English both in the classroom and out of the classroom, the students utilize many kinds of different AI platforms such as: Google Translate, Chat GPT, Duolingo, SiVi, DeepL, and ELSA which were functioned as a tool to practice speaking and listening skills, learn pronunciation, accent, and intonation, enrich vocabulary especially aviation English vocabulary and terminology, and comprehend deeper grammar understanding.

Google Translate is useful tool for the pre-service flight attendants of aviation by offering several functions that can support language learning. One of the main functions of using this App is to translate Indonesian to English words or sentences. Google Translate can quickly translate words or sentences, especially aviation-specific vocabulary and terminology such as emergency procedures, aircraft systems, cabin pressure, etc. This application can help pre-service flight attendants understand technical terms used in communication with pilots, crew, and passengers. Google Translate also helps

the students understand safety instructions, announcements, or any written materials related flight attendants' work which is written in English. Another function of Google Translate can help learn common phrases in Aviation English, such as how to greet passengers, explain safety procedures, or handle special requests. For instance; "Would you like a drink?" or "Please fasten your seatbelt", etc. It helps pre-service flight attendants practice the standard dialogue and maintain clear communication later on. Additionally, speech function is also provided by Google Translate. Google translate can pronounce the translated text, which can help students practice correct pronunciation for aviation-specific terms that they will use to communicate with both passengers and crew. Duolingo and Gemini provided features for speaking, listening, and vocabulary, Chat GPT and Perplexity were used for more complex conversations and brainstorming, Google Translate, Grammarly and DeepL were used for translation and comparing vocabulary, and Quilbot for paraphrasing. SiVi AI provides immediate correction of pronunciation errors.

What has been shown above is in line with Supianto's (2023) concept of AI as Automatic Evaluation, which claims that using AI in assessment offers advantages like objectivity, efficiency, consistency, analytical capabilities, development of assessment programs, personalization, flexibility, and a decrease in assessment fraud. Accordingly, Fitria et al. (2023) add that Duolingo can improve speaking abilities such as grammar, fluency, and pronunciation. It is clear from the previous description of a number of ideas that these AI technologies are useful for improving users' English-speaking abilities. Regarding enhanced English-speaking abilities, every participant reported gains in a number of English language proficiency areas, including pronunciation: AI assisted students in pronouncing difficult words more accurately. Vocabulary: Participants' vocabulary increased as a result of using AI. Grammar: Participants were able to enhance their sentence structure with the assistance of AI's input.

In terms of the interaction preferences, some students preferred to use voice note but some preferred to use AI trough text, and some of them also make a combination between speech or voice and text. Most of the students preferred to use text-based interaction with the AI. These preferences change based on the demands of the individual, indicating that AI may adapt how it communicates with people. For instance, it can use more formal or casual language, connect with users via written or speech, or utilize both written and voice. This is in line with a study conducted by Rane et al. (2023) who state that the integration of Artificial Intelligence (AI) in the field of education can bring a paradigm shift and pave the way for personalized learning experiences to meet individual needs, learning styles, and student preferences. Meanwhile, in terms of the challenges or difficulties in using AI application tools, it is revealed that all students face many challenges, including interaction limitation. The problem is that AI cannot understand the nuances of conversation, or more complex context, limited responses. Sometimes, AI's responses do not match the students' expectations, requiring further clarification, and limitation features. In fact, some applications have limitations that affect the learning experiences, such as word limits in translations. As supported by Khanzode & Sarode (2020), they mention that the weakness of AI as a language learning aid is the absence of human interaction. And in this case AI also cannot handle such a complex situation, therefore AI will not be as perfect as or will not replace humans. Similarly, De Cremer & Kasparov, (2021) also state that when compared to AI which is only responsive to available data, human capabilities are broader, humans have the ability to imagine, anticipate, feel and assess changing situations, which makes it possible them to shift from short-term to long-term concerns. In conclusion, even though the students underlined that AI plays a vital role in the learning process, human interaction-based learning experiences are still essential for developing actual fluency in English.

CONCLUSION

This research concludes that the use of AI can play a role in helping students' English- speaking skills effectively. The AI tools used by participants, such as SiVi, Duolingo, Chat GPT, and others, have helped with various aspects of language proficiency, including pronunciation, vocabulary, and grammar. The participants reported significant improvements in their speaking abilities, especially in

terms of pronunciation, vocabulary and grammar. Additionally, participants preferred interacting with AI through text-based interactions, although some participants also preferred or combined text and voice interactions. Challenges faced by participants included AI's limitations in understanding nuance and complex contexts, as well as certain AI tools' limitations in providing accurate responses or having limited features. Even though there are several challenges and limitations, AI tools still make a significant contribution to the language learning process, especially English through personalized learning, automatic evaluation. However, human interaction remains essential to understanding the complex nuances of language and culture. For readers in this case are students, teachers and AI tool developers are expected to consider these findings to improve tools to help English speaking skills and support so that we can all achieve higher English language competence.

Since for pre-flight attendant students of aviation, improving speaking skills is critical for their success in the profession, as clear communication is essential when interacting with passengers, co-workers, and during emergency situations, a recommendation is offered for the students in utilizing AI applications to enhance their speaking skills. This recommendation is made based on the results of this study. The recommendation is that the students are advised to use a combination of AI application tools. They are recommended to utilize various AI tools such as Duolingo and Chat GPT for a more comprehensive learning experience. Since the English skill a flight attendant needs the most is speaking skills, so this paper recommends some AI application tools to use to increase the students' speaking skills. First, to have better pronunciation, the students are recommended to use: 1) Google Speech-to-Text or Microsoft Azure Speech which is good to help practice speaking clearly and accurately, in which the students can speak into their device, and this speech recognition tool will transcribe what the students say.

The accuracy of the transcription will highlight their pronunciation and enunciation. By practicing, they can adjust their speech until the transcription matches what they intended to say. 2) Elsa Speak, a voice AI-powered language coach, is designed specifically to help non-native speakers improve their pronunciation and speaking skills. It can detect specific pronunciation errors, give feedback, and offer exercises to help students correct their mistakes, which is crucial for flight attendants who may have international passengers. 3) Speechling, a free app, focuses on improving pronunciation by offering feedback from native speakers. It includes daily speaking exercises, where students can record themselves speaking and receive personalized feedback from human coaches. Second, to practice as many as possible, the students can have AI application tools that provide for virtual simulations and role-playing such as; 1) Virtual Fly, a simulator platform, is used for aviation training. While it's primarily focused on flight simulation, it can also be a great tool for practicing communication within simulated flight scenarios, from take-off and landing to in-flight announcements and emergency responses. 2) Voki, an application allowing students to create speaking avatars that they can use in role-playing exercises. This tool can be useful for practicing public speaking, presentation skills, or flight attendant-specific phrases in a more engaging and interactive format. Students can speak to the avatar and get simulated feedback. Third, to have a voice training for tone & clarity, the students can maximize: 1) Vocalytics, an AI-driven tool for improving voice quality, pitch, and tone. This is such a great application to be used for pre-flight attendant students of aviation since a flight attendant's voice must be clear and audible in all environments such as on a noisy airplane. This app can help students refine these skills and learn to speak with appropriate volume and clarity. 2) Voice Tutor, providing personalized training for voice modulation, helping students practice how to speak more confidently and assertively, which is important for public announcements and customer interactions. The fourth, to develop speaking Fluency, the students are recommended to use: 1) FluentU, an AI app that uses real-world videos like music videos, movie trailers, and inspiring talks to teach language through immersion. For flight attendants, this tool can be used to improve language fluency by watching and listening to dialogues that mimic real-life situations, including announcements, greetings, and customer interactions. 2) Lingvist, using AI to personalize the learning experience based on a student's skill level. It focuses on improving vocabulary

and fluency by providing customized lessons and practicing speaking skills, which are essential for flight attendants who need to interact with passengers from diverse linguistic backgrounds.

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