EFL STUDENTS' EXPERIENCE WITH AI TOOLS USED IN THEIR EFL LEARNING

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Abstract

This research investigated English as a Foreign Language (EFL) students' familiarity with AI tools, the frequency of use, the purpose of use, and the perceived benefits of the tools in EFL learning. Undergraduate and Diploma 3 students batch 2020-2023 of a private English language college in Yogyakarta, Indonesia were asked to respond to a questionnaire surveying AI tools they are using in their EFL learning and the applications. Among the 34 AI tools mentioned in the questionnaire, Google Translate, Chat GPT, Grammarly, Canva, Quizziz, and Voice Generator were the most frequently used by the majority of the respondents. The respondents reported using AI tools in their EFL learning sometimes rather than always. Most of them sometimes used the tools for brainstorming, writing support, personalized and immediate English learning support, searching research references, analysis support, multi-media support, and audio support. The majority, however, reported never using the tools for audio multi-media support. Overall, a significant number respondents reported that AI Tools is beneficial because it helps them learn English, enhance their depth of thinking and understanding, and improve their grammar. As for generations, generation Z generally used AI tools to generate ideas, writing support, analysis support, and visual multi-media support. The Millennial often used AI for personalized and immediate English learning, searching research references, and audio multi-media support. In addition, the respondents greatly benefited from AI as AI

helped improve their English skills, depth of thinking and understanding, and grammatical skills.

Keywords: AI tools, tool familiarity, tool usage, EFL learning

INTRODUCTION

Artificial intelligence (AI) has been widely used in higher education (HE) in recent years. It is a beneficial educational technology that assists students in achieving their classroom learning objectives.

Initially, the term ''artificial intelligence'' (AI) was invented by John McCarthy in the 1950s. A conference at Dartmouth college in the summer of 1956 known as the Dartmouth summer research project on AI hosted by McCarthy and Marvin Minsky was considered as the "official birth of AI" (Cordeschi, p.259, 2007). This tool has been used in various sectors including education. Popenici and Kerr (2017) define artificial intelligence used in teaching and learning in higher education as "computing systems that are able to engage in human-like processes such as learning, adapting, synthesizing, self-correction and use of data for complex processing tasks" (2). As for Artificial Intelligence in Education (AIED), it denotes "the use of AI technologies or application programs in educational settings to facilitate teaching, learning, or decision making" (Hwang et al, 2020, p.1).

There are two categories of AI: 1) weak or narrow AI (ANI) and 2) general or strong AI (AGI). Narrow or weak AI is created to do some jobs automatically. It is applied to a strictly specified problem and often performs better than people, but only in certain limited contexts (Schroer, 2023). In other words, it can only perform one specific task. Virtual personal assistants, image and speech recognition systems, recommendation engines, email inbox spam filters, and chatbots – i.e. "conversational agents simulating human dialogues through natural language processing and machine learning algorithms" (Stohr et al, 2024, p.2) – are examples of narrow or weak AI (Schroer, 2023). In contrast, strong AI has the ability to comprehend, acquire, and utilize information in a variety of jobs at a human level, and it could be as intelligent as

humans (Schroer, 2023). This type of AI can be seen in science fiction movies like “I, Robot”, “Wall-E”, and “Star Trek: The Next Generation”.

Narrow AI includes Personalized Learning Platforms (PLP), Intelligent Tutoring Systems (ITS), Language Processing Applications, Natural Language Processing (NLP), and Learning Analytics (LA) (Schroer, 2023, p.3). PLP are educational systems that evaluate individuals' learning styles and offer customized learning materials and activities. Coursera, Edmodo, and Google Classroom are examples of PLP. ITS are computer programs that make use of AI to modify the learning process according to each student's needs. They make use of AI to customize the educational process to each student's needs and are able to assist students with their learning, offer feedback, and respond to inquiries. Nwana (1990) defines ITS as “computer programs that are designed to incorporate techniques from the AI community in order to provide tutors which know *what* they teach, *who* they teach and *how* to teach it” (252). An example of ITS is Cambridge English Grammar in Use in Dahbi’s research (2023). It provides English grammar learning for students in an education master’s degree program. NLP refers to “a tract of Artificial Intelligence and Linguistics, devoted to make computers understand the statements or words written in human languages” (Khurana et al, 2022, p.3714). It makes the user's job easier and facilitates natural language communication with computers. Examples of applications of NLP are voice assistants (e.g Google Assistants, Apple’s Siri, Amazon’s Alexa), chatbots (e.g. ChatGPT, Gemini (formerly Bard), Duolingo, Socratic, Mondly), language translation (e.g. Google Translate, DeepL), search engines (e.g. Google search engine, Bing Microsoft), text summarization (e.g. Text Summary, MeaningCloud’s Summarization API), grammar checks and text prediction (e.g. Grammarly, Hemingway App, ProWritingAid, Wordtune), automated essay scoring, email filters (e.g. Gmail’s email classification), sentiment analysis (e.g. Repustate, MonkeyLearn), market intelligence (e.g. ML Analyzer, Seamless A.I), and Optical Character Recognition/OCR (e.g. PhotoScan, Capture2Text, Microsoft OneNote). As for Learning Analytics, it refers to “the process of gathering and analyzing a large set of data systematically from online sources for the purpose of improving learning processes”

(Nunn et al., 2016 in Mian et al., 2022, p. 2914). AI is used to analyze data from students' digital learning interactions. This data enables educators in comprehending student progress and identifying areas requiring further attention. Examples of LA platforms, including LMS, are EducateMe LMS, Moodle, Dacebo, Intellischool, Loop, Learning Pool).

Some studies have looked into how students use AI tools in higher education and how they perceive and feel about them. The majority of students stated they were familiar with AI concepts in educational contexts and expressed positive attitudes towards the use of AI in education (Aljohani, 2012; Ahmer et al, 2022; Viktorivna et al, 2022; Ayanwale, 2023; Chan and Hu, 2023; Stohr, Ou, and Malmstrom, 2024). Yet, familiarity varies across gender and academic fields. When compared to female students, male students typically report higher degrees of familiarity and optimism regarding the application of AI to education (Balabdaoul et al; Stohr et al 2024). Those majoring in computer science and informatics or technology and engineering typically have greater familiarity with AI tools than those in other fields (Chu et al, 2022; Balabdaoul et al, 2024; Stohr et al 2024). This is because these fields are inherently linked to the study and use of AI technologies. Medical students were also discovered to comprehend AI in medicine well (Ahmer et al, 2023). Students at the Faculty of Education had a more sophisticated understanding of artificial intelligence than those in the Faculty of Arts and Sciences, Faculty of Economics and Administrative Sciences (Keles and Aydin, 2021). The discrepancy may be attributed to differences in educational backgrounds, professional goals, and exposure to technology.

AI tools are often used by students for activities including idea generation, information retrieval, proofreading (Hoang and Nguyen, 2022; Faisal and Carabella, 2023; Balabdaoul et al, 2024), and personalized learning (Arini et al 2022; Chu et al, 2022; Viktorivna et al, 2022; Nisar and Aslam, 2023; Chan and Hu, 2023; Singh and Mishra, 2021). For activities involving language, ChatGPT and Grammarly are two of the most widely used AI tools (Stohr et al 2024). Students also acknowledge that AI may help them in their academic and professional efforts, but they also stress the importance of clear

guidelines regarding AI use (Chu et al, 2022; Balabdaoul et al, 2024).

This research aimed to delve deeper into EFL students' familiarity and experiences with AI tools in their English language learning at LIA School of Foreign Languages, Yogyakarta. The research questions addressed in this research are:

1. What AI tools are the students familiar with?
2. How often do the students use AI tools in their EFL learning and what are they for?
3. Does AI tools usage vary across generations?
4. What benefits do the students get from using AI tools?

A more profound understanding of students' interaction with AI is expected to provide a foundation for optimizing the use of this technology in enhancing the quality of English language learning in higher education environments.

METHOD

Participants

The target participants for this research were the undergraduate and diploma students majoring in English at the LIA School of Foreign Languages Yogyakarta batch 2020-2023. The participants were selected using a random sampling technique. The participation to respond to the survey designed in this research was voluntary, and the responses were anonymous.

Data collection

The primary instrument for data collection in this research was a questionnaire composed of three parts. Part one is respondent demographics including gender (male/female), study program (undergraduate/diploma), student batches (2020/2021/2022/2023) and birth year (born between 1997-2012, 1981-1996, and 1965-1980). The birth year information was classified based on the generation names, i.e. Generation Z (1997-2012), Millennial (1981-1996), and Generation X (1965-1980). Part two consists of 8 questions. The first question is a checkbox question asking the respondents any AI tools they have ever used. The respondents may select multiple answers from a list of AI tools and add any other AI tools in the

"other" answer option. The next 7 questions (Question 2-8) consist of 2 questions each. The first question (question a) uses 5 points Likert scale (never, rarely, sometimes, often, and always), each of which asking about the frequency of AI tools usage in EFL learning. The AI tools usage are 1) generating ideas/brainstorming, 2) writing support, 3) personalized and immediate English learning support, 4) searching research references, 5) analysis support, 6) multi-media support, and 7) audio support respectively. The second question (question b) in each number is a checkbox question which lets the respondents select multiple answers from a list of AI tools they might use in their EFL learning. An "other" answer option was added to allow the respondents type their own answer of AI tools. Each question was designed in a way that if the respondent chose "Never" to answer the 5 points Likert scale question, it would lead the respondent to go to the next 5 points Likert scale question. If the answer was rarely, sometimes, often, or always, the respondent was allowed to go to the checkboxes question that follows it. Part 2 has one checkboxes question (Question 9) related to the benefits the students can get from using the AI tools, and one short answer question (Question 10) giving students' opportunity to add and explain other benefit(s) they might get from using AI tools in EFL learning. The questionnaire was designed in English using Google Forms. The purpose of the questionnaire was informed to the participants of the research, and they were given enough time to fill out the questions.

Data analysis

This research was descriptive quantitative. The results of the questionnaire were displayed in some data tables. The tables demonstrate the percentages of the number of respondents responding to the questions in the questionnaire. Cross-tabulation analysis was used to analyze the data. Two sets of data within one table were discussed in detail descriptively.

RESULTS AND DISCUSSION

Results

Demographic information

The demographic information includes the respondents' batch, gender, study program, and age.

Table 1
Demographic Information

	Frequency	Percentage
Batch		
2020	20	21.5%
2021	30	32.3%
2022	21	22.6%
2023	22	23.7%
Gender		
Male	33	35.5%
Female	60	64.5%
Study Program		
S1	77	82.8%
D3	16	17.2%
Generation		
1997 – 2012 (Gen Z)	85	91.4%
1981 – 1996 (Millennial)	8	8.6%
1965 – 1980 (Gen X)	-	

Table 1 shows the distribution of data from 93 respondents. The number of respondents per batch who filled out the questionnaire was almost balanced. The largest number of respondents who filled out the questionnaire was the batch of 2021 with 30 respondents (32.3%), while the fewest respondents were the batch of 2020 with 20 respondents (21.5%). The majority of the respondents (64.5%)were female and undergraduate students (82.8%). The respondents who filled out this questionnaire were from two generations, the Millennial (8.6%) and generation Z (91.4%).

Students' Familiarity with AI Tools

Since the pandemic of Covid-19, the use of AI tools in learning has increased. The development of AI has been also getting faster and more diverse. Table 2 shows AI tools that the respondents have ever used.

Table 2
AI tools familiar to the respondents

AI tools	2020	2021	2022	2023
Google Translate	75%	83%	95%	91%
Canva	95%	93%	62%	86%
ChatGPT	50%	67%	57%	45%
Grammarly	85%	67%	57%	55%
Quizizz	50%	67%	62%	59%
Voice Generator	80%	67%	24%	50%

Six AI tools were deemed familiar to the respondents. They are Google Translate, Chat GPT, Grammarly, Canva, Quizziz, and Voice Generator. More than 50% of the respondents used these six AI tools. Google Translate was the most familiar to them. The second most familiar was Canva, the third was Chat GPT, Grammarly was the fourth, Quizziz the fifth, and the sixth was Voice generator.

Google Translate was accessed more by batch of 2022 and 2023, and it was used least by batch of 2020. The number of respondents who used Canva the most was batch of 2020and the least was 2022. ChatGPT was accessed more often by batch of 2021, while batch of 2023 used it the least. As for Grammarly, it was used the most by batch of 2020 and the least by 2023. Quizizz was accessed more by batch of 2021, and Voice Generator was accessed more by batch of 2020.

Frequency of AI Tools Usage in EFL Learning

The first question (question a) of each question item in Part 2 of the questionnaire is a question about the frequency of AI tools usage in EFL Learning. There are 7 questions asking about the AI tools usage. The data distribution can be seen in Table 3.

Table 3
Frequency of AI Tools Usage

No	How often do you use AI tools for	Frequency (Percentage)				
		Never	Rarely	Sometimes	Often	Always
1	generating ideas or brainstorming support	10 (10.8%)	22 (23.7%)	34 (36.6%)	19 (20.4%)	7 (7.5%)
2	writing support	8 (8.6%)	22 (23.7%)	34 (36.6%)	15 (16.1%)	12 (12.9%)
3	personalized and immediate English learning support	12 (12.9%)	22 (23.7%)	36 (38.7%)	13 (14%)	9 (9.7%)
4	searching research references	13 (14%)	21 (22.6%)	35 (37.6%)	15 (16.1%)	8 (8.6%)
5	analysis support	23 (24.7%)	17 (18.3%)	29 (31.2%)	14 (15.1%)	10 (10.8%)
6	for visual multi-media support	17 (18.3%)	15 (16.1%)	30 (32.3%)	15 (16.1%)	15 (16.1%)
7	audio multi-media support	29 (31.2%)	16 (17.2%)	28 (30.1%)	8 (8.6%)	8 (8.6%)

Of 93 respondents, 36.6% sometimes used AI for brainstorming, and only 10 respondents stated they have never used AI for generating ideas or brainstorming support. The use of AI as writing support was answered by 97% of the respondents. Most of the respondents (36.6%) answered sometimes. Only 12.9% answered always and 8.6% respondents answered never. The question option about the use of AI for personalized and immediate English learning support was selected by 99% of the respondents. Most of them (38.7%) answered sometimes and 9.7% always used AI for this purpose. There were 12.9% who never used it for this purpose. As for the question about the use of AI for searching research references, 37% of the respondents answered sometimes, 8.6% answered always, and 14% stated they never use AI for this purpose. For the question related to the use of AI for support analysis; 10.8% chose always, 24.7% chose never, and 31.2% chose sometimes.

Questions 6 and 7 relate to the use of AI tools for visual multimedia and audio multimedia support. The majority of respondents (32.3%) answered sometimes for visual multi-media support, whereas most of the respondents (31.2%) stated they never used AI for audio multi-media support. Even though students are now frequently exposed to the use of multi-media, it turns out that 17 students never used AI for visual multi-media support.

In response to the 7 questions about AI tools usage, the most respondents selected "sometimes". Only a small number of respondents chose "always" (ranging from 7-15 respondents). Meanwhile, a big portion of respondents reported "never" used AI (ranging from 8-29 respondents), especially for audio multi-media support.

AI Tools and their Usage in EFL Learning

The data in Table 4 were obtained from 7 questions in the second part of the questionnaire (question b) in which the respondents may select multiple answers from a list of AI tools and add any other AI tools in the "other" answer option. The table displays all AI tools the respondents chose from a list of choices in the checkbox questions as well as from the respondents' answers typed in the "other" option. It also shows AI tools usage in EFL learning.

Table 4
AI tools and their Usage

AI Tools	Support brain-storming or generate ideas	Writing in English	Personalized and immediate English learning	Searching research references	Analysis	Visual multi-media support	Audio multi-media support
Grammarly	1	62					
Google Translate	3	67			1		
Google Assistant							
Siri							
Alexa	1	5					
Chat GPT	63	22	1	47	53		
Quillbot	1	3					
Autoparaphrasing tool, deepL		4					
Quizziz			56				
Wordwall			17				
Kahoot			11				
Duolingo			42				
Google Scholar	7			43	8		
Mendeley	1			36			
Research Rabbit				15			
Canva						79	
Corel, Photoshop						1	
Voice Generator							52
VN, TikTok							1
Google Bard	11				10		
Tinywow	1						
Cambridge		1					
Audacity							1
Power point						2	
Character.ai	1	1					
Faststone						2	
Google slide						4	

Capcut			1	1
Inshot			1	1
Voice spice				3
Bing.ai	6	6		
Interior.ai			1	
Murf				3
Descript				1

Thirty-four (34) AI tools have been used by the respondents. The most frequent AI tools used is Google Translate (86% of the respondents). The second is Canva (85%) followed by Chat GPT (68%), Grammarly (67%), Quizziz(60%), and Voice Generator (56%).

The most familiar AI tool is Google Translate. It was used by 86% respondents. The second AI is Canva (85%) followed by Chat GPT (68%), Grammarly (67%), Quizziz (60%) and Voice Generator (56%). Google translate is commonly used to help with English writing. Canva is used for visual multimedia support. Chat GPT helps students find ideas, write English, analyze and find references. To help with English writing, students also often use Grammarly. To learn English independently and personalized, students often access Quizziz. Voice Generator is used for audio multi-media support.

Benefits of Using AI Tools

Table 5 shows the results of students' response to a checkbox question (Question 9) asking the benefits of using AI Tools.

Table 5
Benefits of Using AI Tools

Statements	Batch				Total	%
	2020	**2021**	**2022**	**2023**		
a. Help to learn English.	14	22	15	18	69	74%
b. Help to improve depth of thinking and understanding.	12	18	10	12	52	56%
c. Help to improve motivation.	9	15	5	8	37	40%

d.	Help to learn better on your own.	8	13	8	9	38	41%
e.	Help to generate ideas.	7	16	12	11	46	49%
f.	Help to gather citations.	6	6	5	6	23	25%
g.	Help to enhance writing skills.	8	11	7	13	39	42%
h.	Help to improve the grammar.	11	16	11	11	49	53%
i.	Facilitate literature searching.	6	8	6	7	27	29%
j.	Help to summarize reading.	5	10	10	12	37	40%
k.	Contribute to data collection and analysis.	6	10	8	6	30	32%
l.	Offer samples and insights.	3	7	4	4	18	19%

From 12 benefits of using AI Tools shown in Table 5, most of the respondents (74%) stated that AI Tools could help them learn English, 56% of them stated that AI Tools helped their depth of thinking and understanding, and 53% respondents improved their grammar by using AI Tools. Other benefits were also felt by the respondents with a percentage below 50%: 40% said AI tools helped improve motivation and summarize reading, 41% agreed that they could learn better in their own way, 49% felt that AI tools helped them generate idea, and 25% found that they were helped gather citations. In addition, AI tools helped 42% respondents enhance their writing skills, facilitated searching for literature (25%) and gave contribution to collect and analyze the data (32%). Only a few (19%) thought that AI tools offered samples and insights.

The results of the last question (Question 10) which is a short-answer item asking other benefit(s) they might get from using AI tools in EFL learning reveal that most respondents were greatly helped by AI tools. Some said that AI helped them find ideas, references, correcting grammatical errors, and meeting deadlines. and making tasks more efficient. In addition, the respondents emphasized that AI helped them quickly, efficiently, and accurately complete tasks given by their

lecturers. They also felt that their English improved after using AI and they could learn from the corrections given by this AI tool. In addition, they reported that AI tools were easy to use and free. Furthermore, some respondents mentioned that they used the tools when the deadline of an assignment was approaching.

However, there was one respondent who reported that he/she did not like using AI tools because they make the brain less developed. He/she argued that the brain will work more optimally if faced directly with a problem and find its own solution without the help of AI. Another respondent stated that he/she realized that AI is just a tool to help learn English. He/she suggested not using AI tools too often as such tools might make students lazy to do task by themselves.

Discussion

Of 34 AI tools that the respondents know, there are 6 AI tools used by more than 50% of the respondents, i.e. Google Translate, Canva, Chat GPT, Grammarly, Quizziz, and Voice Generator.

Google Translate is the most frequently used by the respondents for writing in English. This AI tool is helpful for students when they have difficulty finding words or phrases in English. Likewise, when students read or listen to English words, phrases, or sentences that they do not understand, they use Google Translate to translate. Google Translate is widely used for writing in English and some use it for brainstorming and analysis.

The second AI tool mostly used in this research is Canva. The respondents used Canva for visual multi-media support purposes. Canva does not directly affect English learning, but the designs offered in Canva can increase the users' motivation to learn. Canva can be used for presentation purposes and media for completing assignments. It also provides various templates that can be easily used. Canva also provides various templates that can be easily used by respondents. Several respondents said that the convenience offered by AI tools made their performance in learning easier and more practical.

The third AI tool is Chat GPT. Chat GPT was mainly used by the respondents to support brainstorming or generate ideas, to write an analysis, to find sources for research, to write in English, and to learn English personally. By giving the right commands, chat GPT is able to help provide ideas for the content of assignments that must be done by students.

Grammarly is the fourth commonly used in this research. It was generally used for writing in English. For students studying English, this AI tool is an essential tool for correcting grammar in their writing. Grammarly is able to detect grammatical errors in English writing so that students often rely on this AI tool for correcting their grammar. Grammarly is often used because some lecturers advise students to correct their English writing using this AI tool. Itis helpful in correcting grammatical errors and providing suggestions for word choices in writing. Although it is not recommended to use translation tools, students still choose to use translation tools to help them write English.

Quizziz was the fifth AI tool frequently used by respondents in this research. Quizziz is often used to create quizzes or presentations. Gamification is one of the services offered by Quizziz. Teachers can combine presentations of materials and exercises in the form of gamification. The attractive appearance of Quizziz and the game activities offered by this AI can increase motivation in learning. Quizziz in this research was often used for personalized and immediate English learning activities.

The sixth AI tool is Voice generator. Voice generator is commonly used in audio multi-media support. Voice generator can convert text into audio with various language options. This AI tool can be used to learn correct English pronunciation. Students only need to enter the text they want to pronounce then select the language and accent of which country; then the results of this generator can be used as an example of correct pronunciation. In addition, the audio results can be used as voice over in student assignments.

Other AI tools that have quite a lot of users are Duolingo, Google Scholar, and Mendeley. Other AI tools do not have many users. If observed further, the AI tools that are used by the respondents are indeed related to the needs of students

to complete their assignments. The AI tools are mostly related to written needs and examples of oral production.

Table 6 below displays the results of cross tabulation between age (generations) and AI usage.

Table 6
Age versus usage of AI

Usage of AI	**Gen Y**	**Gen Z**
Generating ideas or brainstorming support	25%	28%
Writing support	25%	29%
Personalized and immediate English learning support	25%	24%
Searching research references	38%	24%
Analysis support	25%	26%
Visual multi-media support	13%	34%
Audio multi-media support	38%	24%

The first age group is respondents born in 1981-1996 or the Millennial, and the second age group is those born in 1997-2012 (Gen Z). The majority of respondents (85 people) were Gen Z; only 8 respondents were from the Millennial. Gen Z was more dominant in using AI to generate ideas, writing support, analysis support, and visual multi-media support. The Millennial often used AI for personalized and immediate English learning, searching research references, and audio multi-media support. In short, the difference in generations does not greatly affect the extent of AI tool usage.

CONCLUSION

The use of AI tools is unavoidable in EFL learning. Various tools have been created to help students complete their tasks. This research found that various AI tools have been sometimes utilized by students who are learning English for different purposes. Six AI tools commonly used to learn English are Google Translate (mostly used by batch of 2020), Chat GPT

(batch of 2021), Grammarly (batch of 2020), Canva (batch of 2020), Quizizz (batch of 2021), and Voice Generator (batch of 2020). The AI tools were mainly used for brainstorming, writing support, personalized and immediate English learning support, searching research references, analysis support, multi-media support, and audio support.

The usage of AI tools varies between generations. AI tools were mostly used by Gen Z for generating ideas, writing support, analysis support, and visual multi-media support. The Millennial frequently used AI for personalized and immediate English learning, searching research references, and audio multi-media support.

Of 12 benefits of AI in English learning, most of the respondents acknowledged that AI tools help them learn English, improve their depth of thinking and understanding, as well as improve their grammatical skills. Knowing these benefits, teachers can figure out the students' greatest needs so that students can use the right AI tools in doing English assignments independently.

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