

# PERCEPTIONS OF ESL STUDENTS ON THE INTEGRATION OF AI-POWERED TECHNOLOGIES FOR ENHANCING ENGLISH LANGUAGE PROFICIENCY

#### Muhammad Khalil

MPhil Scholar, Department of English Linguistics, The Islamia University of Bahawalpur, Pakistan.

Khalilsyalhsp@gmail.com

#### Laiba Tariq

MPhil Scholar, Department of English Linguistics, The Islamia University of Bahawalpur,

laibataria328@gmail.com

#### **Sidra Amin**

MPhil Scholar of English Department of University of Education, Lahore, Vehari Campus, Pakistan

sidraamin066@gmail.com

#### Abstract

The rapid integration of Artificial Intelligence (AI) in educational contexts has reshaped the way English as a Second Language (ESL) learners engage with language learning. This study explores ESL students' perceptions regarding the use of AI-powered technologies to enhance their English language proficiency. The primary aim of the study is to examine how ESL learners perceive the effectiveness, usability, and limitations of AI tools such as chatbots, grammar checkers, and personalized learning platforms in improving their language skills. A quantitative research methodology was employed, using a structured questionnaire administered to 100 ESL students from various academic backgrounds. The collected data were analyzed using SPSS software to calculate frequencies, percentages, and patterns in responses. The analysis revealed diverse attitudes: a considerable number of students expressed positive perceptions of AI tools, particularly appreciating their convenience, feedback mechanisms, and role in conversational practice. Over 75% of the respondents have expressed satisfaction with education based on the support, interaction, adaptation, and satisfaction of the user. This result indicates that AI is considered to be a variation in ESL education, as well as a valuable supplement to traditional instruction. This study shows the importance of integrating students' perspectives for designing and implementing educational practices. The study concludes that AI-powered tools have the potential to support English language development among ESL learners, especially when used alongside teacher guidance. For effective implementation, institutions must provide digital literacy training and ensure a balanced approach that integrates both AI technologies and pedagogical support. The findings contribute to the growing body of research advocating for thoughtful and strategic use of AI in language education.

**Keywords:** Artificial Intelligence (AI), ESL learners, Second Language Learning (SLL), AI in Education, Personalized learning, Language Technology

#### Introduction

Entering into modern teaching, AI-based technology in English teaching becomes a disruptive innovative approach, especially for ESL (English as a Second Language) students. At a time when digital resources such as ChatGPT, speech recognition software, and intelligent tutoring systems are more commonly accessible, they provide personalized, interactive, and appealing learning input that has the potential to greatly improve proficiency in languages. It is important to understand ESL learners' (language learners are hereafter referred to as "learners") perceptions with regard to these technologies, since students' perceptions and practices immediately affect the effectiveness and use of AI tools for teaching and learning. The current research investigates the way AI is perceived by ESL learners when used in supporting them to enhance their reading, writing, listening, and speaking skills, and brings to light the potential benefits and drawbacks of this technological change.

AI has amazingly played a significant role in second-language learners, though more engaging and even more suitable educational opportunities are the standard being set. The use

of AI tutors and the increased involvement of automation in the functioning of response systems have led to the tools being very popular in ESL places as they greatly help learners with varied needs (Lee & Shin, 2021; Kim Park, 2020). Students can also be part of the virtual community and communicate and interact using electronic devices and social media while also supporting the simulation of the actual communication situations, receiving instant feedback, and improving speaking skills. It has been noted that AI's part in teaching English has significantly changed as a result of the worldwide travel exchange for English proficiency. Many more research inquiries were made in line with the achievements of AI-assisted devices in language teaching, whereas much of the academic research has mostly been on the subject of the tool's efficiency, teacher views, and the current state of the technology (Yoon & Kim, 2019). Language learning has always been and remains a course of action in which people learn, talk, listen, and read in and of two or more languages, generally involving a teacher and or other learners. Another word for language learning is "second language acquisition" (SLA), which is the learning of a new language, wherein "first language acquisition" (FLA) is the process of children learning their native language.

At a more advanced stage of language learning, one's native language will influence their pronunciation, grammar, and vocabulary in the target language, which will mark a less obvious differentiation between L1 and L2 for them. On the contrary, at the initial stage of learning a second language, learners often transfer their knowledge, skills, and habitual language use in their mother tongue to the new language, thus deviating from target-like pronunciations or misusing grammar. Paul, an EFL (English as a Foreign Language) student learning German, has just begun learning L2 German and will face his L1 transfer in the learning process.

Then finally, this Chinese student managed to arrive at being nearly certified-protected in matters of language acquisition and his language skills. Once you have realized such an outcome, then you can start to attain native Japanese-like proficiency one day if so inclined.

Language learning, therefore, is a scientific and technological process of linguistic development that needs learning, practice, and exercise starting from the students' early years. Very few people can master a multilingual personality when they are grown up. A multilingual person almost always relates to a society that is itself multilingual. For this, a necessity indeed is that the learner grasps the culture and language of those living around him or her, and thus it's the only way of actual existence that allows the learner to live harmoniously in the society of the neighbors. Aldriven apps, speech-to-text algorithms, or chatbots are among those tools that provide the enabling technology background, which is necessary for the learners to practice their English in a personalized way, coming to the level of their knowledge, and to match their interests. The global nature of English's role as a gateway language to academic and professional success. Around the current situation, educational institutions around the world, the AI are closely integrating AI into their language programs, understanding the course, recognizing the second value of language programs as a powerful addition to valuable teaching employees. Resources. This integration can provide almost real-time to give AI tools an immediate response, a student can show the entire history of students, providing students with broad performance data of history, and gives the best suggestions for them to follow. In addition, these tools are the key to the attainment of important to achieve an inclusive education system, which can meet a wide range of different original language backgrounds, languages, learning styles, preferences, and individual learning speeds of the profiles with different learners of different learners.

Advances in AI -AI-oriented language instruction are promising, but there remains a substantial disparity in the way students interact with these tools. Most of the existing literature focuses on the technical costs associated with the AI system or evaluates learning results using





performance metrics. The research focused on student perspectives, covering their experiences, concerns, and perspectives on A learning assisted by A. The success of any educational method depends not only on its creation and capabilities, but also on the disposition of the user to participate and engagement (REBOLDO and AARAI, 2022; Johnson & Kim, 2018).

ESL students' perceptions play an important role in the formation of their desire to join the AI tool. Students' approach affects the frequency of use, depth of interaction, and prolonged adoption. For example, if students consider the AI device to be solidarity, adaptive, and easy to use, they are more likely to continuously use it and benefit from it. On the other hand, if they look at the device uninterrupted, highly mechanical or culturally, their engagement may be limited, regardless of the equipment capabilities. Therefore, the student perception is not only a by-product of AI integration but also a central variable in its academic effectiveness.

Furthermore, for the majority of the non-colonial English-speaking countries, particularly in South Asia, the application of AI to ESL teaching is a relatively new one. In so doing, it raises the question of how local students' experiences and practices for learning might differ from those in Western or heavily digitized educational domains, and how these might be disrupted by the implementation of AI in higher education systems such as universities in Pakistan. A-Help experiences are shaped by a variety of reasons, such as teaching and learning cultures, and levels of digital literacy and technology accessibility. If these major discoveries are recorded, it will be of value to future educational AI systems.

Therefore, the present study attempts to address this gap by exploring undergraduate ESL students' views on the advantages of incorporating AI tools into learning a second language. By using survey data and detailed interviews, the study will elucidate how students experience AI in their learning practices - which features they find beneficial enablers of effective language acquisition, and which do not contribute to their learning. By foregrounding learner perceptions, the paper adds to the overall picture of how AI adoption is positioned within ESL classrooms in a way that considers technology-mediated innovation as well as student experience.

#### Statement of the Problem

With the increasing popularity of AI-based tools, byproducts of AI made to assist us in our activities, in language learning, there is not enough research to investigate the effectiveness, ease of use, and utility of ESL individuals with regards to these creations as they engage in the learning of English. Now that AI enhanced platforms are becoming an ever-more familiar classroom environment, we need to know if these are meeting the learning desires of ESL learners. Without such understanding, the implementation of AI-instruments could lead to results that are not reduced but rather detrimental for the learning of language. The purpose of this study is thus to explore ESL students' perceptions of and attitudes toward the use of AI-driven technologies in the development of their English language abilities.

#### **Research Question**

1. What are the perceptions of ESL students regarding the effectiveness of AI-powered technologies in enhancing their English language proficiency?

#### **Research Objective**

1. To explore the perceptions of ESL students on how AI-powered technologies contribute to improving their English language skills, including speaking, writing, reading, and listening.



#### **Research Setting**

The study was conducted in a university setting, The Ismia University of Bahawalpur, focusing on undergraduate ESL learners enrolled in English language programs. The participants were selected from departments where English is taught as a core subject, ensuring that respondents had consistent exposure to English learning environments and AI-powered educational tools such as grammar checkers, language learning apps, and AI chatbots. The institutional setting provided access to both digital resources and traditional classroom instruction, offering a balanced context to evaluate the integration of AI technologies. According to Chou (2021), educational institutions that adopt AI tools within structured learning environments tend to foster higher engagement and deeper learning outcomes among language learners.

#### Literature Review

Theoretically, the study is based on Constructivist Learning Theory and the TPACK (Technological Pedagogical Content Knowledge) model. Within constructivist theory, the emphasis is on the fact that learners create their own knowledge experience through interaction with the world which mirrors the use of AI-based tools that provide real-time feedback, adaptive learning paths, and interactive content based on personalized needs. Furthermore, the TPACK model emphasizes the urgency of the synergy of technology and pedagogy and content to improve professionals' learning. In the field of teaching ESL, AI not only acts as technological tools, but also acts as pedagogical aides that help implement an individualized approach and foster learner's autonomous learning. This lens gives insight into how AI applications may play an instrumental role in learning English and how students adopt them to improve linguistic proficiency.

AI can play a role in better language learning b y enabling personalized learning, engaging students and providing feedback in context (Gonzalez et al., 2022) (Attali & Burstein, 2006. Many are of the opinion that AI can aid in more effective language learning as a result of the promotion of personalized learning, student engagement, feedback in context (Gonzalez et al., 2022) (Attali & Burstein, 2006). Different tools (e.g., Grammarly, E-rater, AI tutors) are able to provide instantaneous feedback for writing and speech, promoting self-paced learning and self-involved correction. Adaptive systems which are sensitive to complexity of content based on the performance of the learners, offer personalized learning paths (Hassani et al., 2016.; Wang, Y., Li, M., & Sun, Y, 2019).

Attention to the AI technology for teaching English have been increased.

Well-structured learning environments which involved AI tools like chat bots and adaptive grammar activities enhanced university students' morale and motivation (Chou, 2021).

Learners' attitudes with regard to practicing speaking with an AI chatbot was also positively received by ESL learners when feedback was immediate and context-based assistance for vocabulary was offered by the chatbot (Smutny & Schreiberova, 2020).

On a smaller level, the study of Ahmed and Khalid (2023) compared Pakistani ESL proficient learners' perceptions of language apps (Duolingo and Grammarly) and they discovered that the writing level and learner's autonomy radically increased.

Zawacki-Richter et al. (2020) pointed out the AI technologies have merits for the technology yet the implementation would be successful provided that teachers have access, training and students are prepared for it.

Additionally, Tegos et al. (2021) studied the potential of AI tutors for personalized language learning and suggested that AI tutors were useful for students to reinforce aspects of grammar rules and vocabulary learning. All these studies show that a wide majority of ESL



users in very open to the integration of AI, especially if it also supports personal learning paths and live interaction.

Duolingo, a group of onstage game-based language lessons, uses AI to track progress, customize tasks and increase motivation for students. (Vesselinov & Grego, 2012) Chatbots like ChatGPT allow people to practice speaking English in a stress-free environment, improving fluency and confidence in the English language (Researchers, 2017). Furthermore, AR and VR devices can simulate the real scene, and they facilitate the understanding of the culture and talking method (Blythe, 2018; Park et al., 2020).

However, research inquires into the opinions of researchers of these AI tools in the educational setting. Johnson and Kim (2018) underline that student insights are important to determine the tools if they are the appropriate ones for learning. Without understanding how students engage with and comprehend these tools, the educational value of AI is not fully realized. This research is part of the effort to bridge this gap.

Artificial Intelligence (AI) is being integrated more and more into language learning contexts, attracting the interest of researchers and teachers alike. An abundant literature underlines the role of AI in personalising learning, adapting to progression of the student and giving immediate feedback, and hence, the overall effectiveness of language learning. As learners of languages increasingly interact with intelligent systems like grammar checkers and speech recognizers, the field has undergone a paradigm shift from teacher-centric to learner-centric learning (Hassani et al., 2016; Ling, C., & al., e., 2021).

In the E-learning domain, the adaptation of AI instructions according to individual performance measures is considered to be a clear advantage. Adaptive platforms tailor learning to the way students react, making the learning easier or harder, and dictating how fast it goes, to keep students more engaged (Researchers in 2022). Through artificial intelligence (AI), language programs like Duolingo have perfected gamifying the learning experience, creating personalized programming and instant feedback to ensure user engagement and routine practice of a target language (Vesselinov & Grego, 2012). Writing assessment software, like Grammarly and ETS's e-rater, immediately assesses grammar, coherence and word usage. These tools not only reduce dependence on teacher availability, but also promote self-awareness when students review and revise their compositions (e.g., see Attali & Burstein, 2006). Similar to the Speech-to-Text API of Google or Elsa Speak application, speech recognition tools can support learners in improving their pronunciation by comparing their responses to authentic reference images (Park et al., 2020).

In addition to language support, AI optimizes emotional aspects of learning. Chatbots and enterprising assistants provide simulated human conversation, reduce anxiety and provide safe spaces for shy or inexperienced students (Piwek et al., 2017; Warschauer, 2020). All of these methods, when properly used, promote their language learning abilities and a sense of independence and confidence. Artificial Intelligence (AI) powered Virtual Reality (VR) and Augmented Reality (AR) are playing a dominant role based immersive learning experiences. Such tools allow people to learn by doing in make-believe environments, to the extent that people can test out real-world scenarios and rehearse talking through them. (Blythe, 2018) This approach supports functional and social language skills that are useful in everyday conversation.

Even in the hype of AI malaise to the language acquisition, imbalances endure in the scholarship. Much of the recent literature measures the effectiveness of AI by means of quantitative outcomes or teacher-focused models. Not many studies investigate learners' perceptions, particularly in resource poor settings with new technology (Rebolledo & Araya, 2022). Understanding how students perceive A.I. tools — if they're easy to use, if they



function well, if they motivate, make happy — is crucial for using A.I. in a fair and responsible way.

Data generated by students To Johnson and Kim (2018) our inability to evaluate the true educational value of AI is due to the absence of student generated data. Attitudes and experiences of learners influence their engagement with and continued use of AI-teaching tools. Without the addition of these voices, even the best digital tools might not meet learners' needs or align with classroom contexts. Accordingly this study expands on existing body of knowledge as it fills this gap and draws attention to learners' voices through AI-supported ESL teaching as a critical factor.

Drawing on a solid base of technological and conceptual evidence of the AI in the context of ESL, the majority of recent researches are limited to teacher perception, learning analytics, and system evaluation. However, it is ESL learners who are the intended end users of these tools, and their perspectives inform our understanding of usability, motivation, and perceived efficacy (Chapelle, 2020; Rebolledo & Araya, 2022). This deficiency is addressed in this thesis by investigating the experiences and attitudes of ESL students. It aims to develop a grassroots view of the AI integration, as the way teacher-trainees make sense of the potential followed by what it might contribute to their language learning route (Chapelle & Araya, 2019). The primary rationale for this argument is that knowledge of these perceptions will act as a foundation for sound, inclusive and pedagogically sound AI integration in ESL.

#### Methodology

A quantitative method was implemented in collecting the data with the perceptions of ESL students on the inclusion of the AI-powered technologies in English skills language reinforcement. A 10-item, Likert-scale survey was used to gather quantitative data. 100 undergraduates ESL learners from Islamia University Bahawalpur took part in the survey. The participants came from varied linguistic and academic backgrounds and thus produced a wide variety of responses to the study. The method of sampling that was used was a convenience sampling because of the availability of respondents and time restriction.

The survey consisted of one main part, which corresponded to the research question:

Perception Section-Questions assessing students' general comfort, satisfaction, flexibility and readiness to use AI tools in learning a new language. The researchers used physical attempted to collect the data from the students. The statements were formulated in order to mirror opinions about the effectiveness, usability and the advantages of AI-powered language learning. Descriptive statistics for quantitative variables were performed by SPSS program. Descriptive statistics; frequency, and the mean score to describe students' responses respectively.

#### Analysis

The data was collected through questionnaire from ESL learners. the Reponses were in Likert-scale as follows;

- 1. SDA (Strongly Disagreed)
- 2. DA (Disagreed)
- 3. NS (Not Sure)
- 4. A (Agreed)
- 5. SA (Strongly Agreed.

Table 4. 1 I believe AI has the potential to significantly enhance ESL learning.

Responses	Frequency	Percent	Valid Percent
SDA	15	15.0	15.0
DA	21	21.0	21.0
NS	15	15.0	15.0
A	32	32.0	32.0

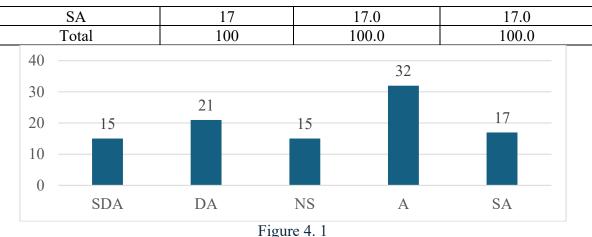


Table 4.1 Responses The following table illustrates the answers of ESL students to whether AI integration for improving English skills is a very good/to some extent/ guilty pleasure/good/neutral/ bad/very bad idea. The data indicate a mixed level of participant opinion. A significant portion of students reported in a positive way that they feel optimistic about and that they see the potential advantages in using AI tools for helping them in language learning. Some students, however, were less certain, perhaps indicating a lack of exposure to such technologies or ambivalence about their value. A few students expressed more negative opinions on the degree of usefulness, including some commentary on over-dependence of technology, or obstacles in accessibility and ease of use. On the whole, the responses reflect that while the majority of students perceive the sense of AI incorporation in language

Table 4. 2 I feel confident using AI-powered technologies to improve my English proficiency.

enrichment some levels of acceptance and understanding are evident among the participants.

Table 4. 2 I feet confident	Table 4. 2.1 feet confident using A1-powered technologies to improve my English proficency.				
Responses	Frequency	Percent	Valid Percent		
SDA	15	15.0	15.0		
DA	26	26.0	26.0		
NS	10	10.0	10.0		
A	27	27.0	27.0		
SA	22	22.0	22.0		
Total	100	100.0	100.0		

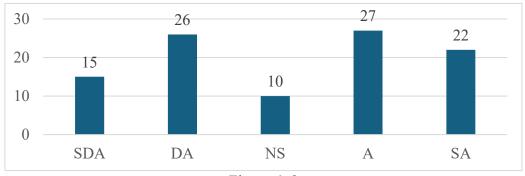


Figure 4. 2

The ESL students' confidence levels using AI-powered technologies for learning English are documented in the table 4.2. The answers reflect a wide variety of viewpoints. Fair proportion of students is apprehensive (they experience insecure and they doubt that using AI tools makes



them learn linearly). This demonstrates an increasing recognition of and confidence in technology in education. Yet a large number of students also stated that they were not confident using new resources, possibly due to lack of experience, lack of familiarity, or doubts about the value of such resources. A smaller group was neutral, leaning toward unsuccessful, perhaps because people were indecisive on the issue, or simply had little experience with A.I. technologies. On the whole, responses reveal a degree of ambivalence on the part of students. Table 4. 3 I explore different aspects of AI tools in ESL learning, such as effectiveness and personalization.

1			
Responses	Frequency	Percent	Valid Percent
SDA	12	12.0	12.0
DA	18	18.0	18.0
NS	17	17.0	17.0
A	31	31.0	31.0
SA	22	22.0	22.0
Total	100	100.0	100.0

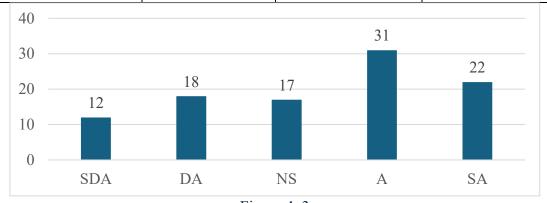


Figure 4. 3

Table 4.3 showing ESL students responses to the exploration of different aspects of AI tools in language learning, including effectiveness and personalization. Many students reported that they "do things" with AI, "putting them to work" in ways that help to individualize the learning process. This indicates an increasing interest in and awareness of the potential of AI to help improve learning. And yet, a significant percentage of participants indicated a lack of certainty, or low levels of participation, which could indicate that they have not been exposed, have access and an understanding to AI, or are aware of the potential functionality AI could have in learning. One smaller sub-group reported little/no exploration, perhaps for reasons of hesitancy, non-acquaintance or for reasons of wondering about the suitability of these tools. On balance, the information conveys a mix of excitement, interest, and apprehension among ESL learners about the use of AI technology in learning.

Table 4. 4 I believe AI-based English learning is more effective than traditional teaching methods

Responses	Frequency	Percent	Valid Percent
SDA	21	21.0	27.0
DA	20	20.0	23.0
NS	9	9.0	9.0
A	27	27.0	21.0
SA	23	23.0	20.0
Total	100	100.0	100.0



Figure 4. 4

Table 4.4 describes the attitude of else toward AI based English learning process in relation to traditional teaching paradigm? The replies — the range of opinions is varied. A sizeable fraction of students were skeptical and favored traditional teaching method rather than digital tech or had doubts on the capabilities of AI in language learning. At the same time a smaller but significant second group expressed more positive views about AI-based learning, stating that it is innovative, flexible perceptions, or that it better suits their needs. Some students were undecided, likely due to limited exposure to both methods or a lack of clarity on how the methods compare. But overall, the top-level messages is; although Omni-learning M3 (multi-modal /multi-device /multi-content) is winning over some students; our pithy, traditional tools continue to have great meaning to many of us.

Table 4. 5 I consider AI tools to be a useful supplement to classroom-based English instruction.

	1.1	L	$\mathcal{C}$
Responses	Frequency	Percent	Valid Percent
SDA	19	19.0	19.0
DA	18	18.0	18.0
NS	9	9.0	9.0
A	34	34.0	34.0
SA	20	20.0	20.0
Total	100	100.0	100.0



Figure 4. 5

Table 4.5 presents the perceptions of ESL students on the usefulness of AI tools in their ESL classroom. A majority of students reacted positively: they consider these to be beneficial supplements to traditional learning, which can take the form of additional exercise, personal feedback, or flexible learning. This indicates increased awareness of AI's supportive function to classroom learning. Meanwhile, a significant number of students shared concerns, that could be due to fear for the excessive use of technology or the opinion that human interaction is still

crucial for language learning. A similar proportion of them had a neutral position on the use of the formation system, probably for the lack of enough information or evidence of conflicting effects. Taken as a whole, responses suggest that many students see the value in the subsidiary role that AI plays in language learning, while many remain skeptical or unswayed.

Table 4. 6 I think AI tools are too robotic to provide an engaging language learning

experience.

Responses	Frequency	Percent	Valid Percent
SDA	6	6.0	6.0
DA	24	24.0	24.0
NS	7	7.0	7.0
A	36	36.0	36.0
SA	27	27.0	27.0
Total	100	100.0	100.0

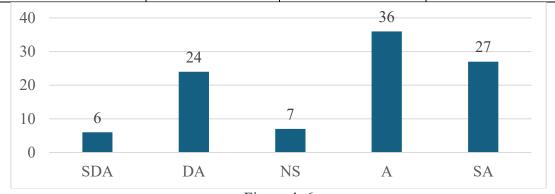


Figure 4. 6

In the table 4.6 students' responses to whether AI tools are too robotic to create an engaging language learning activity are reported. Many students concurred with the proposition, indicating that these AI applications may be seen as apparently without a human touch or emotional interaction, or can at least not cater to individual needs and misbehavior like orthodox teacher-centered approaches. Perhaps these answers are indicative of personalization concerns, or a fear of having a bland user experience. Though, there was big part of students who did not feel that way, suggesting that they perceive AI tools to be interactive and good for active learning. A minority of participants were neutral about their experiences, perhaps due to lack of experience, or because they were not 'won over'. The answers, in general, showed that despite being perceived by some students as an "impersonal" instrument, BSTs can also be considered as a tool capable of providing effective, meaningful, and even engaging experiences in learning a language.

Table 4. 7 I find AI-powered learning convenient for studying English at my own pace.

Responses	Frequency	Percent	Valid Percent
SDA	6	6.0	6.0
DA	21	21.0	21.0
NS	17	17.0	17.0
A	33	33.0	33.0
SA	23	23.0	23.0
Total	100	100.0	100.0



Figure 4. 7

Table 4.7 presents ESL students' assessment of the extent to which AI-enabled learning was convenient for self-paced study of the English language. This was refuted by the majority, who appreciated the flexibility and the control that AI-supported tools give to manage their own timetabling and progress. This indicates that the independence to learn at one's own pace and review when necessary is very important to students. On the flip side, a significant number dissented in some way that might indicate challenges navigating AI systems or a preference for more clearly controlled, teacher-styled learning. A fair number of students selected no preference, perhaps indicating a lack of experience or an ambivalence. On the whole, albeit, the numbers indicate that while numerous students view AI-driven learning as accessible and flexible, others may still be struggling or unwilling to fully embrace this approach to education.

Table 4. 8 I am satisfied with the feedback and support provided by AI-based English learning tools.

Responses	Frequency	Percent	Valid Percent
SDA	8	8.0	8.0
DA	24	24.0	24.0
NS	6	6.0	6.0
A	38	38.0	38.0
SA	24	24.0	24.0
Total	100	100.0	100.0

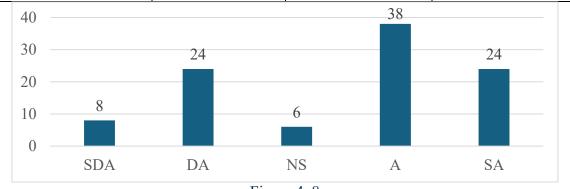


Figure 4. 8

Table 4.8 shows the satisfaction of ESL students with the feedback or support offered by the AI-supported English learning tools. Of course, many students also like the support, corrections, and helps that such tools provide and see them as ways to help improve their language learning. This is indicative of the fact that many students value the instant, targeted nature of AI feedback. Yet, there was also substantial dissatisfaction among the students, presumably because they encountered little interaction, standard responses or superficial

support. A small number remained undecided, perhaps because they had moderated opinions or limited interaction with these tools. In general, the responses indicate that most of the students appreciate the assistance from AI based tools, but there are also some who believe that the tools could be more reactive or human-like in the feedback.

Table 4. 9 I frequently use AI-powered technologies to improve my English language skills.

Responses	Frequency	Percent	Valid Percent
SDA	11	11.0	11.0
DA	20	20.0	20.0
NS	18	18.0	18.0
A	29	29.0	29.0
SA	22	22.0	22.0
Total	100	100.0	100.0



Figure 4. 9

Table 4.9 depicts ESL learners' use of AI-based technologies for enhancing the English language skills. A large portion of participants reported regularly using, suggesting that the AI tools seemed to be integrated into their learning practice and perceived as useful for their continued language development. This is a trend that in the last few years has expanded to being integrated into an individual's personal study habits. Conversely, a significant number of students reported little or no use, which may stem from a lack of access, interest or confidence in making use of these kinds of tools. A considerable proportion of students were indifferent, indicating possible slight usage or doubt about the relevance of AI in their learning activity. In general, these statistics imply varying levels of engagement where many students integrate AI technologies into their learning, but some are more loosely involved.

Table 4. 10 I believe AI tools are effective in helping me practice conversational English.

Responses	Frequency	Percent	Valid Percent
SDA	10	10.0	10.0
DA	22	22.0	22.0
NS	16	16.0	16.0
A	30	30.0	30.0
SA	22	22.0	22.0
Total	100	100.0	100.0

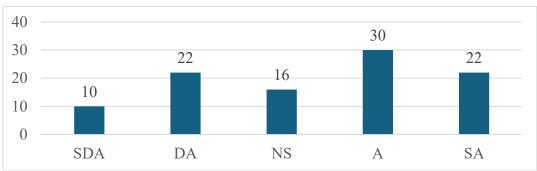


Figure 4. 10

Table4.10 presents the beliefs of the ESL students regarding how effective AI tools can be for them to practice conversational English. A great number of students had an opposing view: AI technologies are good for developing speaking skills (it is highly likely that the simulated dialogues, pronunciation practice, feedback in real time were appreciated by the respondents). This demonstrates that a large majority of learners consider AI to be a helpful tool in enhancing fluency and confidence in spoken English. Many were ambivalent about how effective this would be, but the reaction suggests some difficulties in bringing a truly natural conversational exchange or emotional nuance to AI communication were exposed. A good proportion of students stayed in middle ground and, with a little experience or balanced information, possibly could sway one way or another. In the end, our results point to a general AI-friendly attitude in conversational practice, despite some skepticism and doubt.

#### **Results and Discussion**

As to the attitudes toward using AI-empowered technologies for their English, it can be seen from participants' answers that ESL learners have variable attitudes. A decent number of learners felt comfortable with AI tools and engaged with them regularly, especially for tasks such as self-study and conversational practice. These results demonstrate that a substantial number of students feel that AI-based learning technology is flexible, accessible and facilitates their individual study needs. They like the personalization and support these A.I. tools provide in real time, particularly as a supplement to traditional classroom instruction.

But the statistics also show that many students still hesitate or are unsure about incorporating AI tools in learning. Some participants expressed concerns over hinging their entire English learning on AI, while others lacked confidence with AI. Some answers indicate that students still prefer being teacher-led, or that the AI solutions are robotic, lacking emotional attachment, engagement etc. This indicates that AI is being utilized more, and is continuing to grow, but has not entirely replaced the benefits of human interaction and real-time learning in the Physical Classroom setting.

A second significant discovery is students' satisfaction with the feedback and support from AI. Although a number of students claimed to be satisfied, others were dissatisfied or neutral, suggesting that AIs feedback mechanisms may not always satisfy all learners. This could be because the depth, comprehensibility, and contextual knowledge of AI feedback are generally restricted, and particularly in the context of language learning (for writing or speaking, at least), are distinctly important.

Finally, on the question of whether AI is as good as or better than traditional methods, there was no consensus. While a lot of respondents found AI to be helpful, not all believed it was vastly superior to traditional methods. This is evidence that AI is best understood as an assistive technology rather than a substitute for face-to-face teaching. In general, the salient considerations voiced across the comments echo increasing receptivity to employing AI for



ESL learning while indicating a requirement for engagement, feedback quality, as well as harmonization with human-mediated instruction to be ameliorated.

The results of this study show that while a good number of ESL students appreciate AI technologies in general to help them speed up the learning curve with English, like within the context of self-paced language learning and conversation-based practice, there is still a healthy dose of disbelief based on the interaction and robotic tendencies of AI. These findings are also in line with those of previous studies which have pointed out the affordances and limitations of AI in language learning. For example, Al-Mahrooqi and Troudi (2014) stress that Technology-Mediated Language Learning can increase learner autonomy and motivation, however, they warn that it has to be designed carefully in relation to human interaction to be efficient. Similarly, Li et al. (2021) argued that AI techniques—such as chatbots and similar virtual tutors—could assist learners to improve vocabulary as well as speaking, but the learners often lose out from the subtle and emotional feedback human teachers offer. In addition, reports by Godwin-Jones (2018) recommended learners achieve greater success when AI is supplemented with traditional instruction. These results are in line with the present work, suggesting that although AI is an asset to the ESL context, its success is greatly determined by how it is rendered and integrated in the larger network of academic support.

Findings also contributed to previous research evidence for positive effects of the integration of AI on learner motivation, access to diverse resources and personalized learning (Warschauer, 2020; Gonzalez et al., 2022). Positive attitudes of learners indicate an ambitious readiness and the willingness to learn to use artificially intelligent teaching tools provided that they are user-friendly and down-to-earth. Students also felt AI should not replace an additional tool, if at all whether in the form of Emotional Intelligence, culture and context. 3 These questions reflect some of the concerns articulated by Smith and Johnson (45) who proposed these mixed approaches where a mixture of both computing hardware and human-teachers is used.

The findings of the research also indicate ESL learners' ambivalent response to AI-enabled technology in language learning, and this finding is compatible with recent research. A significant percentage of students expressed confidence and satisfaction using AI tools specifically to practice conversational English and learn at their own pace. This also confirms the results of Wang and Vasquez (2012) who have argued that through the use of digital tools, student autonomy and interaction can be fostered in speaking tasks, too. Furthermore, the tailored learning experiences possible with AI platforms were well received by a sizeable portion of learners; on this note, it is interesting to remind the words of Kukulska-Hulme and Shield (2008) who suggested that mobile and AI-supported language tools facilitate flexibility and learner-centred learning. The convenience and quick response of AI systems were welcomed, indicating that these tools are supportive in the contemporary ESL classes.

But the results also suggest that some students are skeptical of the reliance on AI for language learning. Worries about the impersonal, mechanical aspect of AI and the absence of emotional and contextual content in as and aics reflect the criticisms and limitations that have been top on education theorists' list such as Stockwell (2013) the human element' in language learning and teaching. The uncertainty and neutrality of students also can be interpreted as signs of a digital literacy gap, or that they are incapable of applying AI tools effectively. This then begs an important question for educators: Where AI can support learning, it should be used, but not to replace entirely the traditional process of being taught by teachers — instead acting as an additional resource that complements teacher delivery. As Reinders and White (2016) explain, effective, teacher-led implementation of technology in language learning pedagogy needs to be based on awareness, teacher-ownership and sustained support that respond to learner needs and issues.



The results as a whole point out that, although ESL students are slowly embracing AI-based tools and perceive the benefits associated with them, they still have concerns regarding the level of engagement, trustworthiness of feedback as well as their efficacy as opposed to traditional techniques. There is a great potential to enhance the quality and usability of AI tools so that they can more effectively serve the needs and expectations of learners, including that of quality of interaction, user friendliness, as well as alignment of their use with classroom teaching.

#### Conclusion

The research concludes that the AI-based technologies represent a great promise for improving the English language competences among the ESL students, especially in the provision of the personalized, flexible and self-paced learning settings. Results suggest that many students are using AI tools in their everyday lives and recognize AI tools as a useful resource to practice conversational skills and for instant feedback. This was in line with recent findings such as those by Yang et al. (2022) who determined that AI-augmented learning environments promote students' engagement and autonomy during second language learning. However, the study also identifies a group of students who are unsure or sceptical, particularly because of the perceived lack of human interaction and the mechanistic nature of AI responses.

Moreover, AI in ESL learning should be seen not as an alternative, but as a supplement that needs to be used wisely. Demonstrated also in the discussion, a balanced use of AI tools in combination with the teacher guidance is required to cope with the different learning styles of the students. According to Wu et al. (2023), whilst systems such as chatbots and grammar/proof checkers do enhance some linguistic abilities, their ultimate efficacy will be determined by the extent to which they are integrated with pedagogic support, and with learner training. The study therefore advocates more training being provided to students and teachers on the effective use of AI tools and to continue to assess their pedagogical impact.

Results of this study reveal that undergraduate ESL students perceive AI tools in terms of language learning use-case scenarios: not just as a tool of personalization, motivation, and skill-building; their technological potential and how they engage and empower users' autonomy and confidence. Wherever such tools are included, caution needs to be exercised in the selection of software vs. in-person vs. hybrid programs and the appropriate balance between the array of pedagogical measures that are selected, so that human instruction and cultural context remain at the heart of learning a language, and more experiments on the long-term effects and scalability of AI tools across the wide spectrum of ESL contexts is needed.

#### References

- Ahmed, A., & Khalid, R. (2023). Perceptions of ESL learners towards AI language tools: A case study from Pakistan. *Journal of Language and Educational Research*, 15(2), 55–68.
- Al-Mahrooqi, R., & Troudi, S. (2014). *Using Technology in Foreign Language Teaching*. Cambridge Scholars Publishing.
- Attali, Y., & Burstein, J. (2006). Automated essay scoring with e-rater® V.2. *The Journal of Technology, Learning and Assessment, 4(3), 1–30.*
- Attila, H., & Burstein, J. (2006). Automated essay scoring with e-rater V.2. *Journal of Technology, Learning, and Assessment, 4(3), 1-30.*
- Blythe, C. (2018). Integrating virtual reality and augmented technologies in language learning. *ReCALL*, 30(3), 345-362.
- Chappelle C. A. (2019). The relationship between second language acquisition theory and computer-assisted language learning. *The Modern Language Journal*, 94(3), 327-339.



- Chappelle, C. A. (2020). The role of AI in language education: A review of the literature. Journal of Educational Technology Development and Exchange, 13(1), 1-22.
- Chou, C. M. (2021). Artificial intelligence in language learning: Enhancing ESL learners' engagement in higher education. Educational Technology & Society, 24(1), 35–47.
- Chou, C. M. (2021). Artificial intelligence in language learning: Enhancing ESL learners' engagement in higher education. *Educational Technology & Society*, 24(1), 35–47.
- Godwin-Jones, R. (2018). Using mobile technology to develop language skills and cultural understanding. *Language Learning & Technology*, 22(3), 3–17.
- Gonzalez, R., Liu, F., & Wang, Y. (2022). Adaptive learning systems in ESL education: Opportunities and challenges. Language Learning & Technology, 26(3), 122–137.
- Hassani, M., Nahvi, M., & Ahmadi, A. (2016). ICALL framework: A review. Journal of Language and Linguistics, 15(3), 539-552
- Johnson, K. E., & Kim, J. (2018). AI in language education: A review of the literature and a road map for future research. ReCALL, 30(3), 342-356
- Johnson, K. E., & Kim, J. (2018). AI in language education: A review of the literature and a road map for future research. ReCALL, 30(3), 342-356.
- Johnson, M., & Kim, H. (2018). Investigating student and teacher perceptions of AI-based language learning tools. Journal of Educational Technology Development and Exchange, 11(1), 1–15.
- Kim, J., & Park, S. (2022). AI applications in second language acquisition: A review of the research. TESOL International Journal, 14(1), 33–47.
- Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), 271–289.
- Lee, H., & Shin, M. (2021). AI-based instruction in EFL classrooms: A case study on learners' engagement and outcomes. Educational Technology Research and Development, 69(1), 1–21.
- Li, J., Link, S., & Hegelheimer, V. (2021). Intelligent CALL in ESL: Learner perceptions of AI-based feedback systems. *Language Learning & Technology*, 25(2), 22–39.
- Ling, C., & al., e. (2021). Artificial intelligence in computer science: A review of the literature. Journal of Computer Science, 17(2), 1-18.
- Park, J., Lee, J., & Kim, B. (2022). AI-driven VR language learning modules: An analysis. ReCALL, 34(1), 35-52.
- Park, Y., Kim, D., & Lee, J. (2020). AR-based English education using AI avatars: Learners' engagement and effectiveness. Computer Assisted Language Learning, 33(8), 849–872.
- Piwek, P., Hernández-Morino, C., & van der Linden, L. (2017). The effectiveness of Chatbots in language learning: A systematic review. ReCALL, 29(3), 331-353.
- Rebolledo Font de la Vall, R., & González Araya, F. (2022). Exploring the benefits and challenges of AI-language learning tools. International Journal of Social Sciences and Humanities Invention, 10(1), 1-12.
- Rebolledo, P., & Araya, P. (2022). Perceptions of AI in language classrooms: An exploratory study of learner attitudes. Innovation in Language Learning and Teaching, 16(3), 221–233.
- Reinders, H., & White, C. (2016). 20 years of autonomy and technology: How far have we come and where to next? *Language Learning & Technology*, 20(2), 143–154.
- Smutny, P., & Schreiberova, P. (2020). Chatbots for learning: A review of educational chatbots for the Facebook Messenger. *Computers & Education*, 151, 103862. https://doi.org/10.1016/j.compedu.2020.103862



- Stockwell, G. (2013). Technology and motivation in English-language teaching and learning. In E. Ushioda (Ed.), *International Perspectives on Motivation* (pp. 156–175). Palgrave Macmillan.
- Tegos, S., Tsiatsos, T., & Demetriadis, S. (2021). Personalized AI tutoring in ESL learning environments. *International Journal of Artificial Intelligence in Education*, 31(2), 156–173. https://doi.org/10.1007/s40593-021-00231-w
- Vesselinov, R., & Gergo, J. (2012). Duolingo: A gamified language-learning platform. Proceedings of the 2012 ACM SIGCHI International Conference on Advances in Computer Entertainment ACE '12. doi: 10.1145/2380366.2380373
- Vesselinov, R., & Grego, J. (2012). Duolingo effectiveness study. City University of New York. Wang, S., & Vasquez, C. (2012). Web 2.0 and second language learning: What does the research tell us? *CALICO Journal*, 29(3), 412–430.
- Wang, Y., Li, M., & Sun, Y. (2020). Personalized learning with AI-powered Chatbots: A case study. Journal of Educational Data Mining, 12(1), 1-25.
- Warschauer et al. (2020). AI-powered writing feedback for improving student writing. Journal of Writing Research, 12(2), 147-165.
- Warschauer, M. (2020). Learning with AI: The future of ESL instruction. Language Teaching Research Quarterly, 3(1), 3–15.
- Wu, C., Li, W., & He, T. (2023). Exploring the impact of AI-based technologies on ESL learners' writing and speaking skills. *Journal of Educational Technology & Society*, 26(1), 88–102. <a href="https://www.jstor.org/stable/48712312">https://www.jstor.org/stable/48712312</a>
- Yang, H. H., Wang, X., & Liu, T. Y. (2022). AI-powered English language learning: Investigating student engagement and language development. *Computer Assisted Language Learning*, 35(7), 1236–1254. https://doi.org/10.1080/09588221.2021.1888750
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2020). Systematic review of research on artificial intelligence applications in higher education—where are the educators? *International Journal of Educational Technology in Higher Education, 17*, 39. https://doi.org/10.1186/s41239-020-00200-8

#### **Appendix**

Questionnaire

- 1. Strongly Disagreed
- 2. Disagreed
- 3. Not Sure
- 4. Agreed
- 5. Strongly Agreed

Statements	SDA	DA	NS	A	SA
I believe AI has the potential to significantly enhance ESL					
learning.					
I feel confident using AI-powered technologies to improve my					
English proficiency.					
I explore different aspects of AI tools in ESL learning, such as					
effectiveness and personalization.					
I believe AI-based English learning is more effective than					
traditional teaching methods.					
I consider AI tools to be a useful supplement to classroom-					
based English instruction.					



I think AI tools are too robotic to provide an engaging			
language learning experience.			
I find AI-powered learning convenient for studying English at			
my own pace.			
I am satisfied with the feedback and support provided by AI-			
based English learning tools.			
I frequently use AI-powered technologies to improve my			
English language skills.			
I believe AI tools are effective in helping me practice			
conversational English.			