

THE IMPACT OF AI TOOLS IN IMPROVING THE ENGLISH LANGUAGE PROFICIENCY OF LEARNERS AT BS LEVEL

Zainab Altaf

MS English Linguistics Scholar zainaalta46@gmail.com

Dr. Umara Shaheen

Assistant Professor ushaheen@cuilahore.edu.pk

Department of Humanities COMSATS University Islamabad, Lahore Campus
Pakistan

ABSTRACT

The AI tools shift students' roles from passive recipients to active participants in the learning process, leading to a more profound and fulfilling engagement. It helps learners improve their proficiency in the English language and also provides learners to achieve a better level of knowledge and literacy while enhancing various skills in ESL. The goal of this research was to identify learners' opinions on the integration of AI tools for improving their performance in the English language, and how they foster learning with the extended use of AI along with the impact it has on the learner's motivation. To fulfill this purpose, a quantitative research methodology (questionnaire) was opted which is an important tool for data collection. The data was gathered from the students of B.S. English at Comsats University Islamabad, Lahore Campus. 60 B.S. English students were asked to fill out the questionnaire, and among those only 50 questionnaires turned out to be correct which were then used as the sample. The data was then analyzed with the help of SPSS software and the required results were achieved. The findings demonstrate that most of the respondents (80.79%) favored the use of AI tools and that they adopted AI tools to improve their proficiency in the English language and a large number of students (85.36%) agreed that AI tools greatly impact the motivation and language proficiency of the English language learner. Therefore, it can be inferred that the use and support of AI tools are significant in enhancing the English language proficiency of students at the undergraduate level.

Keywords: AI tools, ESL skills, integration, motivation, proficiency.

INTRODUCTION

Artificial intelligence (AI) serves as a remarkable tool across various fields, notably in education, which is a primary area of impact. (Khan, 2023). It is making headway in every sector and offers a massive influence on education as well. English language skills can be mastered with the help of AI tools at the bachelor's (BS) level. These advanced technologies provide the learner with a personalized learning experience, with the adaptive feedback and interactiveness geared to the learner individually, increasing learner engagement and effectiveness in language teaching. Applications driven by AI, such as language-learning apps, intelligent tutoring systems, and automated assessment tools, have proven particularly promising in cultivating learners' English language competencies. In Pakistan, individuals want to study English for educational and professional purposes, as this is the official language and also the second language (Haidar & Fang, 2019, as cited in Ali et al., 2020). The use of the English language is an important educational goal at the academic, professional, and personal level (Pettela, 2020). Artificial intelligence (AI) technology is one of the latest ways for language learning (Rusmiyanto, 2023). Many AI applications use natural language processing (NLP) to help learners study and improve their English fluency. Some examples of AI applications are Grammarly, Google Translate, Elsa and Alexa (N & Kumar N S, 2023). Dishon (2017) asserts that artificial intelligence is prominent in education by offering individualised learning plans, with subsequent courses of study that are specific to each learner's needs and learning context (Huang, Saleh, & Liu, 2021). According to research, the use of AI in language learning not only develops linguistic abilities but also has a positive impact on the confidence and motivation of learners (Smith, 2023). In addition, AI tools create a more responsive and

adaptable learning structure where students can practice in their own time and schedule (Johnson, 2022). This paper investigates the impact of different AI tools, specifically on the English language proficiency of BS-level learners, along with their positive and negative effects.

In recent years, there has been considerable interest and research breaking into the integration of artificial intelligence (AI) in education. Over time, AI technologies have matured and developed to provide new, groundbreaking methods to improve education approaches and results. When it comes to language learning, AI tools have shown the promise of replacing traditional methods of teaching to introduce a more personalized, interactive, and effective way of learning.

The use of technology in language education is no doubt an old story. From the moment language labs made their debut in the mid-20th century Blackwood. lab, and well into the 1980s when computer-assisted language learning (CALL) programs were first introduced, educators have been working to find ways to use technology to improve the process of learning language. But those first tools are but a fraction of what the AI-driven tools of today can do. Advances in Natural language processing technology, in addition to machine learning algorithms, are expanding the reach and impact of Edtech.

1.1 Research Objectives

This research aims to inform learners about the importance of incorporating AI tools into their lives and its significance in improving their English language skills. Teaching and learning through AI tools will foster learning with the extended use of these tools. Some of the objectives are given as:

- . To investigate the attitudes and views of learners about the integration of AI tools in English language learning and teaching.
- . The primary objectives of this research are to analyze the impact of AI tools on learners' motivation to learn English and to investigate the correlation between the usage of AI tools and learners' English language proficiency levels.

1.2 Research Questions

In forming the research questions, the central theme of the research will be considered: exploring the effect of AI tools on student English language proficiency at the bachelor level. The following research questions are formulated accordingly.

- . What are learners' opinions on the integration of AI tools in English language classrooms?
- . What effect do AI tools have on the motivation and language proficiency of English language learners?

1.3 Hypotheses

The hypothesis presented by the researcher is:

- . Bachelor's students perceive AI-powered education to have a positive effect on their educational experience by offering a self-paced learning experience, personalized feedback, better engagement, and learning outcomes.

1.4 Study Conceptual and Theoretical Frameworks

A good conceptual framework is always well-organised, in which all sub-concepts are coordinated and, in the end, these concepts are linked with the study's core concept. This research features a well-built conceptual framework in which all concepts are centred on a single theme: the impact of AI tools for improving the English language proficiency of learners.

LITERATURE REVIEW

This study gives us a sketch of literature relevant to the current research. Artificial intelligence is an indispensable tool for students, especially in the learning process. To encourage students to make use of AI to improve their proficiency in the English language. The role and effects of AI tools in the literacy development of learners at the Bachelor (BS) level have been of

principal interest to researchers and scholars. The main ideas summarising technique was also applied to this review, which presents the benefits and flaws of using AI in language learning based on the data of recent investigations. AI makes learning easier in a way that meets the needs of every learner since the technology is capable of customising the classes. These tools assess learner performance data to teach, which makes the process of learning a language easier. For instance, Chen and Xu (2020) showed how the implementation of learning platforms that incorporate the use of AI-enhanced vocabulary and grammar within an interval of time, due to the available individual training and feedback services. Hence, personalization kills off any chances of one-on-one teaching to ensure that the learners can go through all the materials at their own pace with a focus on the areas they find difficult to grasp.

2.1 Engagement and Motivation

Perhaps the greatest benefit of AI is that it allows for designing and developing effective and highly motivating contexts for language acquisition. Some of the facets borrowed from game design and employed in AI applications include points, badges, and leaderboards: these help motivate the students to engage with more content. According to Loewen, Isbell, and Sporn (2019), the study put forward and explained that students using AI-based language learning apps were more engaged and motivated than with conventional procedures. This involvement is important for language practice and enhancement, given the handling of complex episodes in future tasks.

2.2 Importance of the English Language in Pakistan

English has played a key role in our nation ever since it was founded. Even though Urdu is our official language, there are some places where English seems to be the dominant tongue. The English language is recognised as a second language in some professions while being a foreign language in others. Because of this, English might be characterized in our country as a language that is somewhere between a second and a foreign language. In our nation, a person who can speak English fluently is considered educated. Tahir (2013) claims that in Pakistan, English appears to be a necessity as opposed to a luxury. Because it increases employment opportunities, it appears that the ability to communicate in English is essential. From the 1st grade, the whole way to graduation, students in Pakistan are expected to concentrate on the English language. English is commonly used as the language of instruction at higher education levels in Pakistan. Its widespread use as a common language is a significant contributor to its popularity. Thus, the overall goal of policymakers is to improve English proficiency in the country and improve student outcomes. To support this aim, they are promoting the use of technology in the teaching and learning of English. One strategy includes using the Internet to provide English language teaching. Before moving on to the application of technology in English language instruction, let us first examine the significance of technology in education.

2.3 Benefits of AI in Improving ESL Proficiency

Today, artificial intelligence plays a paramount role in the domain of language learning, having ushered in disruptive development in all four key language skills of reading, writing, listening, and speaking. This section shall, through in-text citations of relevant research, illustrate the way AI makes enhancements to these skill areas.

2.3.1 Reading Skills

AI tools enhance reading skills through personalized reading materials and interactive exercises that cater to the proficiency level of the learner. For instance, it is possible to use AI-powered intelligent tutoring systems to analyze the reading habits of a student and the levels of understanding, after which texts that are shown to be challenging yet appropriate for the intended purpose are recommended. Using a sample of 243 students, Chen and Xua (2020) discovered that AI reading programs had a significant positive impact on students' reading comprehension and vocabulary acquisition by giving tailored content to individual needs.

2.3.2 Writing Skills

One of the ways through which AI is supporting people is in the area of writing skills. This is through the use of automated feedback and correction systems in the field that help with writing skills. For instance, in the area of writing skills, Grammarly and Turnitin use AI for lives; they bring suggestions in real time relating to grammar and style, which helps students improve their skills in writing. They also give feedback regarding coherence, cohesion, and structure. Smith (2023) argued that the AI-based writing tool increases the proficiency of writing among learners since it provides immediate feedback with the details that will enable the students to pinpoint exactly what they must work on. In this way, they are guided to correct the errors to produce a quality product.

2.3.3 Listening Skills

AI will improve the listening skills as a student practices through interactive and adaptive exercises. The speech recognition software or AI-based language learning app has a diverse number of practice materials, ranging from listening comprehension, integrative listening, and selective listening, adapting to the student's proficiency level. For instance, Rosetta Stone and Duolingo use AI to deliver listening exercises appropriate for the level of the learner, and that gradually get harder. As Warschauer (2019) states, it helps the learner improve listening by providing a broad base of audio input and very prompt feedback on the output produced.

2.3.4 Speaking Skills

The AI is of prime importance in speaking due to practice and immediate corrective feedback. A speech recognition technology allows an individual learner to practice pronunciation and fluency in a non-stressful environment. Speech recognition facilities such as Google Assistant and language learning apps offer instant feedback on pronunciation and spoken grammar to give current updates. Loewen et al. (2019) showed evidence that students who used AI-based speaking practice tools developed great oral communication because the tool provides a non-judgmental platform for repetitive practice and instant error correction to the learner.

2.4 Integration of AI Tools in English Language Learning

2.4.1 Chatbots

Chatbots, a type of AI-driven conversational system, represent the latest technological innovation aimed at enabling automated interactions between humans and machines (Nghie et al., 2019). In the context of English language education, a chatbot designed for this purpose functions as a conversation partner, allowing learners to practice English through both written and spoken exchanges. To enhance its effectiveness as a language-learning tool, the chatbot should incorporate features like grammar correction and a daily activity log. These features help identify grammatical errors, suggest improved sentence constructions, and provide explanations for corrections. The daily log monitors the learner's progress, particularly in conversational fluency and sentence structure. This system allows users to become more comfortable with everyday English conversation while receiving useful feedback on their language use. The interaction typically begins when the user initiates a message.

2.4.2 Google Translate

Advancements in translation technology have made tools like Google Translate more accessible and practical. Integrated directly into the Google Keyboard, Google Translate allows users to seamlessly translate text between Indonesian and English as they type. In educational settings, especially for learning English, it serves as a widely used online translation resource. Students frequently use it for translating content in both directions, Indonesian to English and vice versa, supporting a variety of language learning activities. Beyond translation, Google Translate helps users check for spelling errors and typos, and offers pronunciation support for unfamiliar words, making it a comprehensive tool for language learners.

2.4.3 Text to Speech (TTS)

The Text-To-Speech (TTS) features in English language teaching convert computer-generated text into audio, which can be modified in terms of speed of speech, pitch, and file format of the audio. TTS can improve the way teaching and learning can take place by increasing the accessibility and effectiveness of educational content, particularly in English language lab situations (Yudhistro, 2016).

2.4.4 English Able

The ABLE for English is a Learning Environment that uses assessments to direct instruction, developed by Zapata-Rivera et al in 2007. English ABLE focuses on utilizing assessment knowledge from various sources to instruct English language learners about grammar through tests. It utilises a TOEFL CBT job library to create improved assignments for ELLs and offers scaffolded learning to master English grammar facets.

Although AI has promising potential advantages for the language learning process, significant ethical questions arise. Important topics such as algorithmic bias, data privacy, and the nature of human-AI interaction will need to be addressed to ensure the use of the technology is ethical and fair.

RESEARCH METHODOLOGY

Neville (2007) defines research as a systematic and ethical process of investigating and gathering information about a particular topic or problem to gain a deeper understanding and find possible solutions to challenges.

3.1 Research Setting

The research took place at COMSATS University Islamabad, Lahore Campus. The researcher opted for the quantitative method, a questionnaire that is an important tool for data collection.

3.2 Population

The research participants consisted of undergraduate English students studying at the Comsats University Islamabad. A survey needs to be conducted among the students who use AI tools to

improve their proficiency in the English language. It is important to focus on the whole population and a small group of individuals to research.

3.3 Sample

A sample refers to the individuals chosen to take part in a survey. It is a sub-group of a larger population in which the researcher wants to collect event data using the researcher's chosen data collection method. Information on the sample used in this study is below.

3.3.1 Sample Size

The sample size is the number of people from whom the data is to be collected. In this research, 70 B.S. English students were asked to fill out the questionnaire, and among those only 60 questionnaires turned out to be correct. Simple random sampling (SRS) was the technique by which this research was administered.

3.4 Data Collection Tool

A data collection tool, a questionnaire utilizing closed-ended questions based on the Likert Scale, was adapted from an article by Othman (2023) to assess candidates' opinions about the impact of AI tools on improving English language proficiency. This data collection method is less time-consuming and provides greater anonymity for learners. Considering these advantages, the researchers chose the questionnaire method to gather data for the current study. The researcher preferred using a Google Forms link to create the questionnaire instead of printed versions.

3.4.1 Scales Used in the Questionnaires

The Likert scale is an ordinal scale for measurement, rather than nominal, that is frequently used for measuring attitudes or opinions. It invites respondents to choose a response regarding level of agreement to a statement, usually on a 5-point or 7-point scale. In this case, a five-point directional scale was implemented to elicit responses, as outlined below: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree.

3.4.2 Analysis of Questionnaires

The questionnaire is analyzed by basic statistical tools such as frequency and percentage.

3.5 Pilot Study

Five students enrolled in the selected university's undergraduate English program participated in the pilot study. The main objectives were:

- Testing and analysis procedures
- Assessment of response rate
- Checking the wording of the questionnaire
- Order of test questions
- Estimating survey completion time
- Get to know the respondents.

After the pilot study, the questionnaire was improved, which can be accessed at the following link: <https://rb.gy/j88om9>.

DATA ANALYSIS AND RESULTS

Table 4.1“AI-powered learning is an important means of enhancing personalized and self-learning.”

SR.	Options	Frequency	Percentage	Mean	St. Deviation
1	Strongly Agree	16	26.7		
2	Agree	36	60.0		

3	Neutral	6	10.0	1.91	.765
4	Disagree	1	1.7		
5	Strongly Disagree	1	1.7		
6	Total	60	100.0		

Table 4.1 shows the responses received by the students to the statement that AI-powered learning is an important means of enhancing personalized and self-learning. 26.7 percent of respondents strongly agreed with this statement, and 60.0 percent of respondents only agreed. On the other hand, 1.7 percent disagreed with the statement, and 1.7 percent strongly disagreed with the statement. 10.0% of them did not have a definite opinion about the statement of both directions. Therefore, we can conclude that the majority of responses (86.7 percent) were positive opinions about the statement. Thus, the mean score ($M=1.91$) and the standard deviation ($SD=.7390$) show that most of the respondents agreed with the statement. Figure 4.1 shows a graphical representation of the findings in the form of a bar chart

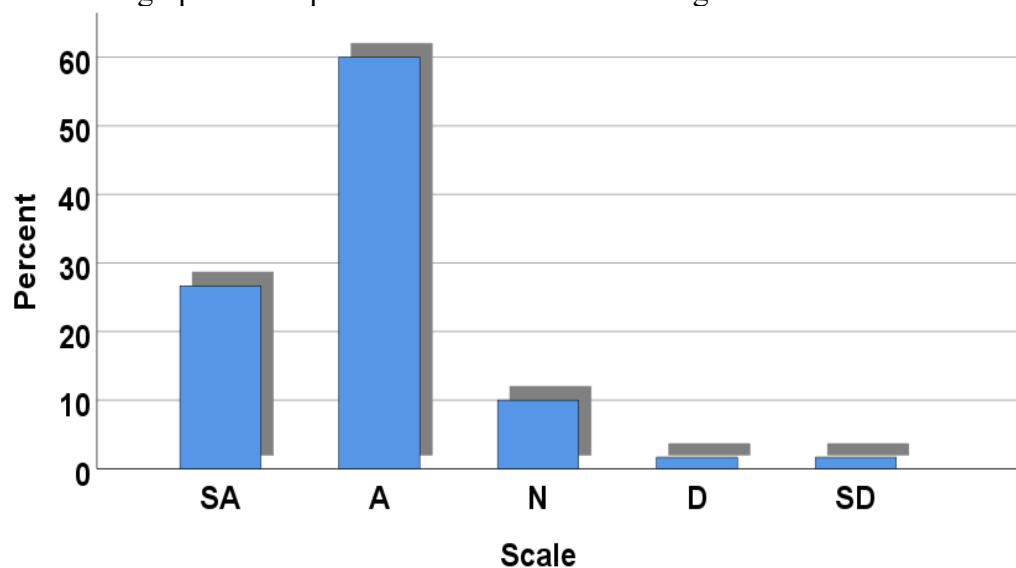


Table 4.2 “Artificial intelligence-based learning helps EFL learners develop their skills and acquire proficiency.”

SR.	Options	Frequency	Percentage	Mean	St. Deviation
1	Strongly Agree	26	43.3		
2	Agree	24	40.0		
3	Neutral	8	13.3		

4	Disagree	1	1.7	1.78	.865
5	Strongly Disagree	1	1.7		
6	Total	60	100.0		

The data presented in Table 4.2 indicates the viewpoints of students on that Artificial intelligence-based learning helps EFL learners develop their skills and acquire proficiency. According to the table, 43.3% of the participants strongly agreed and 40.0% agreed that Artificial intelligence helps EFL learners to improve their skills. However, a small portion of the respondents, 1.7%, disagreed, and 1.7% strongly disagreed. Additionally, 13.3% of the respondents had no opinion on the matter. Overall, the majority of the respondents (83.3%) favored the statement, and the mean score ($M=1.78$, $SD=.865$) suggests that most respondents agreed with the statement. The results are also illustrated in Figure 4.2 in the form of a bar chart.

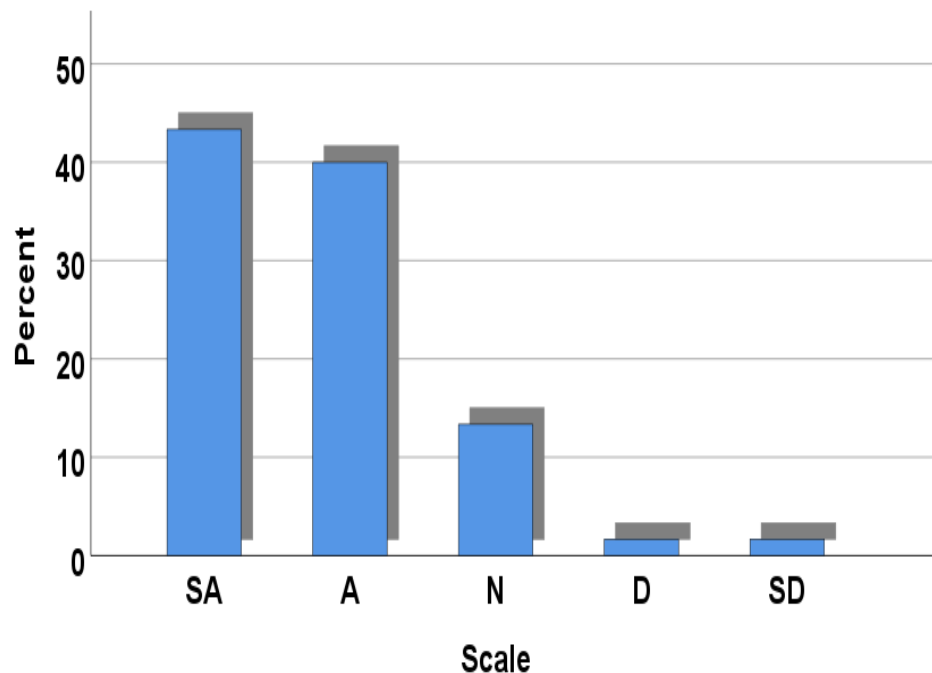


Table 4.3: “Artificial intelligence-based teaching makes learning and teaching an active and engaging process.”

SR.	Options	Frequency	Percentage	Mean	St. Deviation
1	Strongly Agree	20	33.3		
2	Agree	33	55.0		

3	Neutral	1	1.7	1.91	.961
4	Disagree	4	6.7		
5	Strongly Disagree	2	3.3		
6	Total	60	100.0		

Table 4.3 shows what the students think about the statement that Artificial intelligence-based teaching makes learning and teaching an active and engaging process. 33.3 percent of the respondents strongly agreed and 55.0 percent agreed that AI-based learning makes teaching and learning an active process. However, 6.7 percent of respondents disagreed, and 3.3 percent strongly disagreed. 1.7% of them did not have strong feelings about this statement. 88.3 percent of survey respondents said they agreed with the statement. Thus, the mean score ($M = 1.91$, $SD = .961$) indicates that most of the respondents agreed with the statement. Figure 4.3 is a bar chart showing the results.

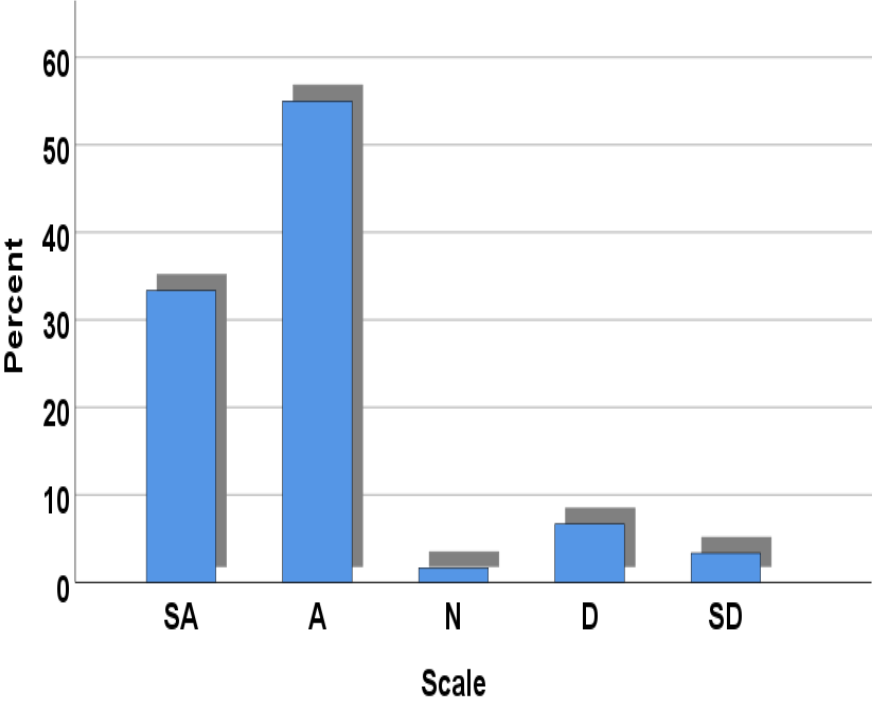


Table 4.4: “Artificial intelligence-based learning does not damage the relationship between the teacher and students.”

SR.	Options	Frequency	Percentage	Mean	St. Deviation
1	Strongly Agree	17	28.3	2.16	1.011
2	Agree	24	40.0		
3	Neutral	12	20.0		
4	Disagree	6	10.0		
5	Strongly Disagree	1	1.7		
6	Total	60	100.0		

Table 4.4 shows that Artificial intelligence-based learning does not damage the relationship between the teacher and students. 28.3 percent of the participants strongly agreed and 40.0 percent agreed that AI doesn’t damage the relationship between teachers and students. However, 10.0 percent disagreed and 1.7 percent strongly disagreed. 20.0 percent of them remained neutral in their opinion. The conclusion is that the majority, 68.3 percent of those who were surveyed, commented positively on the statement. The mean score (M= 2.16, SD= 1.011) shows positive results. The results are presented graphically using the bar chart in Figure 4.4.

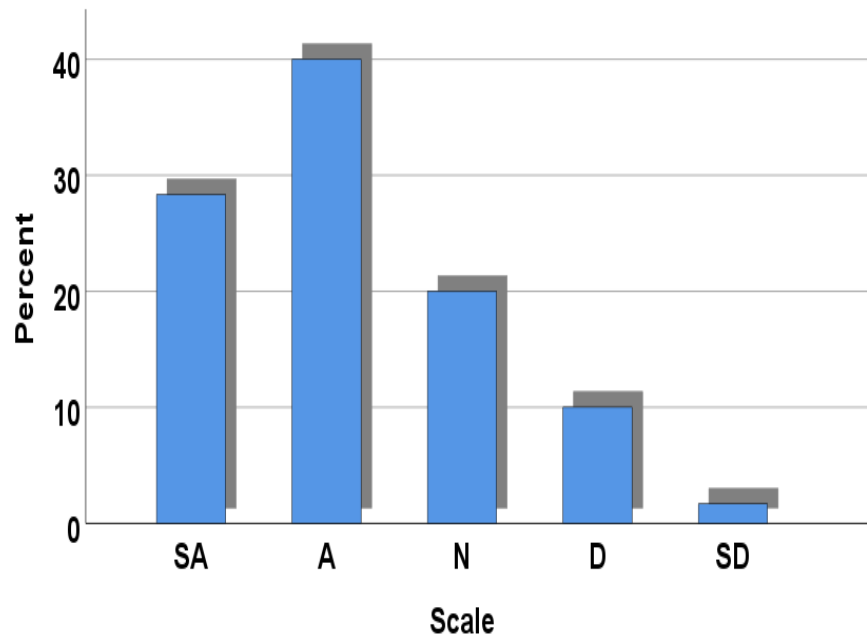


Table 4.5: “Artificial intelligence-based learning turns emotional learning activity into a mechanical process.”

SR.	Options	Frequency	Percentage	Mean	St. Deviation
1	Strongly Agree	14	23.3	2.05	.790
2	Agree	32	53.3		
3	Neutral	11	18.3		
4	Disagree	3	5.0		
5	Strongly Disagree	0	0.0		
6	Total	60	100.0		

Table 4.5 shows students' responses to the following statement: Artificial intelligence-based learning turns emotional learning activity into a mechanical process. 23.3% of the respondents strongly agreed, and 53.3% of the respondents simply agreed. On the other hand, 5.0 percent were against it, and 0.0 percent were completely against it. 18.3 percent of them did not have a definite opinion about the statement of both directions. It can be concluded that many participants, 76.6 percent, were in favor of this statement. The result was an average score of

2.05 out of a possible 0.790. Figure 4.5 shows a graphical representation of the findings in the form of a bar chart.

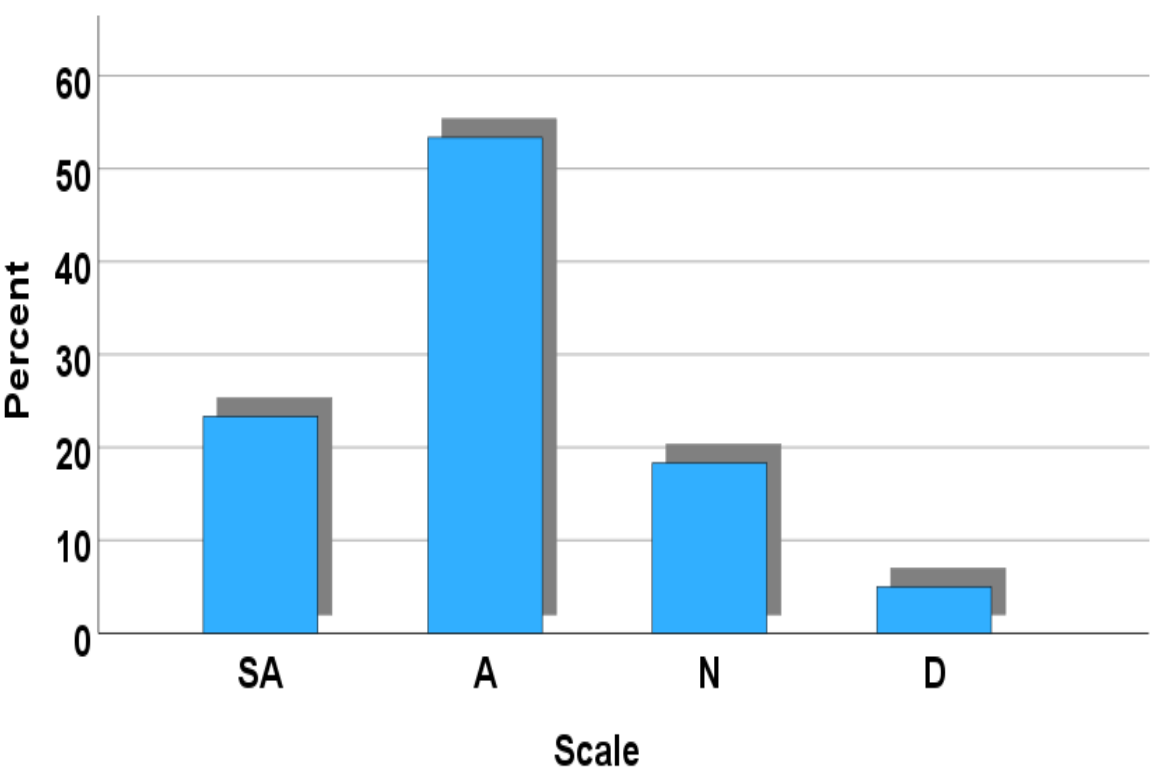


Table 4.6: “I believe artificial intelligence-enabled learning makes students independent and self-learners.”

SR.	Options	Frequency	Percentage	Mean	St. Deviation
1	Strongly Agree	12	20.0	2.03	.843
2	Agree	40	66.7		
3	Neutral	4	6.7		
4	Disagree	2	3.3		
5	Strongly Disagree	2	3.3		
6	Total	60	100.0		

Table 4.6 shows the answers received by the students to the statement that I believe artificial

intelligence-enabled learning makes students independent and self-learners. 20.0% of them strongly agree with this statement, and 66.7% of them agree. On the other hand, 3.3 percent of respondents were strongly against it, and 3.3 percent of respondents were against it. Only 6.7 percent of the respondents remained indifferent to the statement. It can be concluded that the majority of respondents, 86.7 percent, had a positive attitude toward the statement. Therefore, the mean ($M = 2.03$, $SD = 0.843$) indicates that artificial intelligence makes students independent self-learners. Figure 4.6 shows a graphical representation of the findings in the form of a bar diagram.

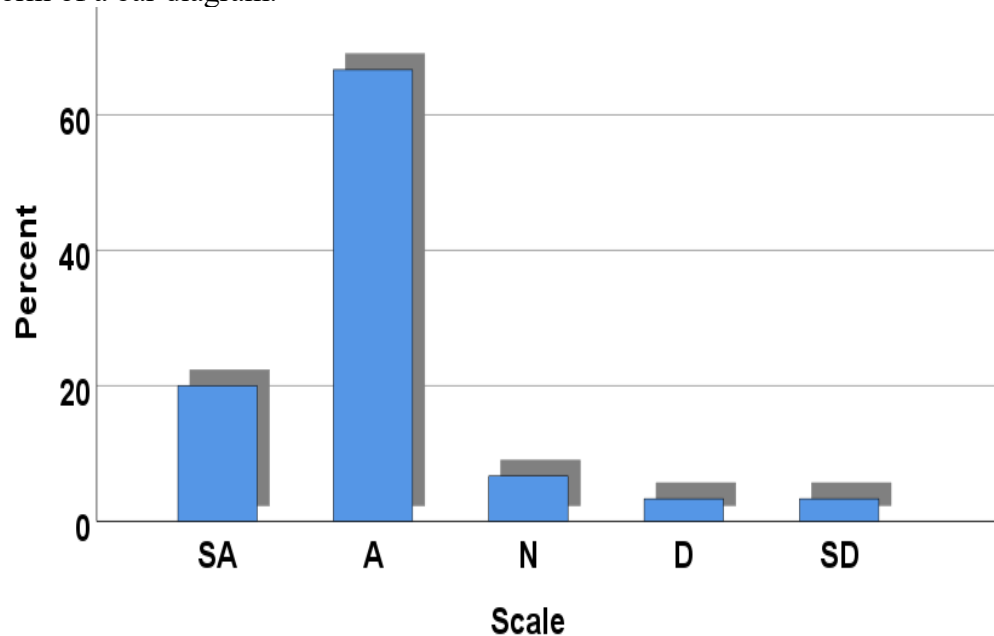


Table 4.7: “I believe artificial intelligence-enabled learning encourages collaborative and interactive learning.”

SR.	Options	Frequency	Percentage	Mean	St. Deviation
1	Strongly Agree	21	35.0	1.80	.708
2	Agree	31	51.7		
3	Neutral	7	11.7		
4	Disagree	1	1.7		
5	Strongly Disagree	0	0.0		

6	Total	60	100.0		
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Table 4.7 shows the responses received by the students to the above statement reveal that 35.0 percent of the respondents fully agree with this statement, and 51.7 percent of the respondents agree with the statement. In contrast, 1.7 percent of respondents were against it, and 0.0 percent were completely against it. 11.7 percent of them did not have a definite opinion about the statement of both directions. It can be concluded that the majority of the participants, 86.7 percent, had a positive attitude toward the statement. Therefore, with a mean score of 1.80 and a standard deviation of 0.708, most of the participants agreed with the statement that AI encourages collaborative and interactive learning. Figure 4.7 shows a graphical representation of the findings in the form of a bar diagram.

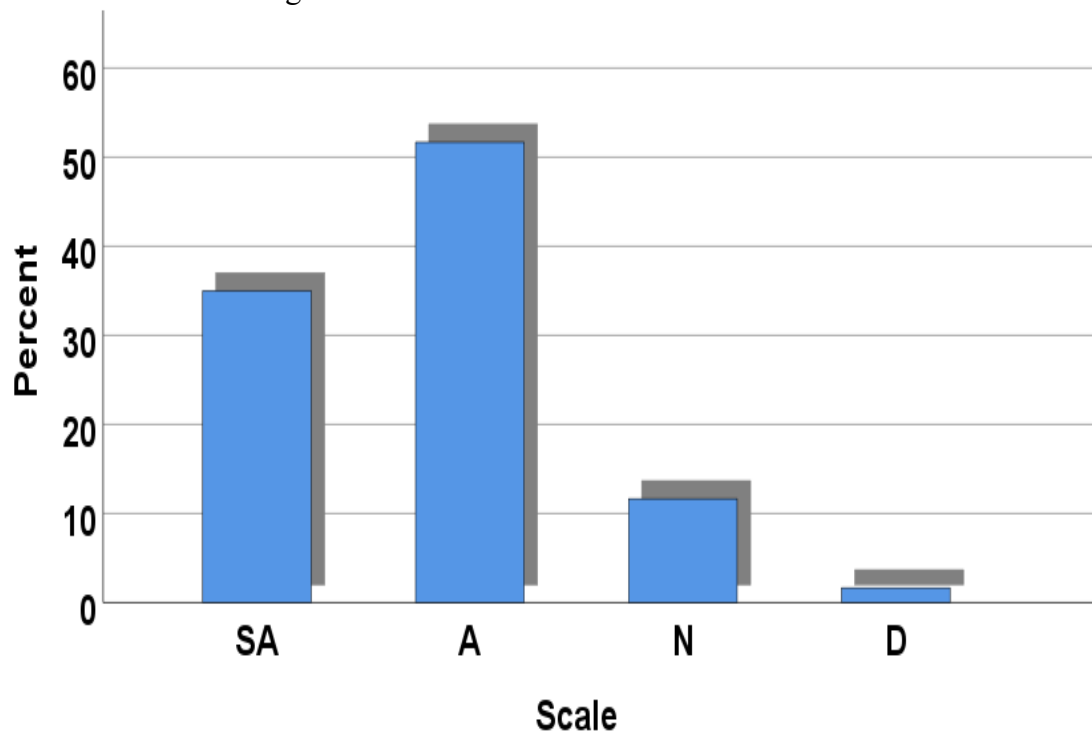


Table 4.8: “I think the use of artificial intelligence (AI) reduces the stressful process of learning through trial and error.”

SR.	Options	Frequency	Percentage	Mean	St. Deviation
1	Strongly Agree	12	20.0	1.90	.543
2	Agree	42	70.0		
3	Neutral	6	10.0		

4	Disagree	0	0.0		
5	Strongly Disagree	0	0.0		
6	Total	60	100.0		

Table 4.8 shows the responses of students to the statement, "I think the use of artificial intelligence (AI) lessens the stressful nature of learning through trial and error." A total of 70.0% agreed and 20.0% strongly agreed with the statement. There were no responses of disagreement (0.0%), nor were there any strongly disagreeing responses (0.0%), and 10.0% chose neutral. Therefore, it can be assessed that a vast majority (90.0%) supported the statement, while the mean score ($M = 1.90$, $SD = 0.543$) news it that most agreed. That said, Figure 4.8 denotes those results in a bar chart format.

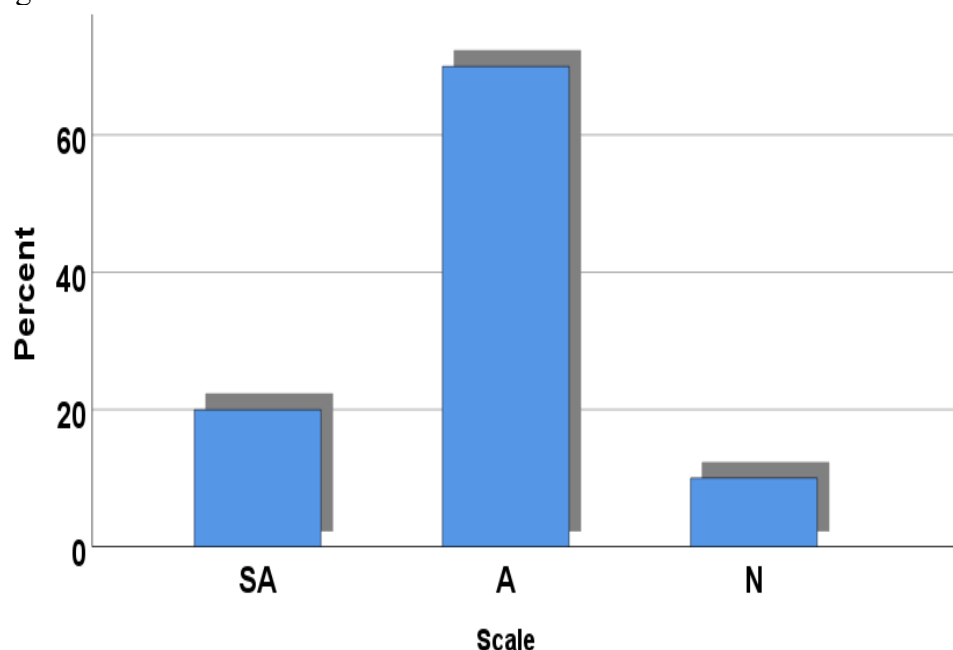
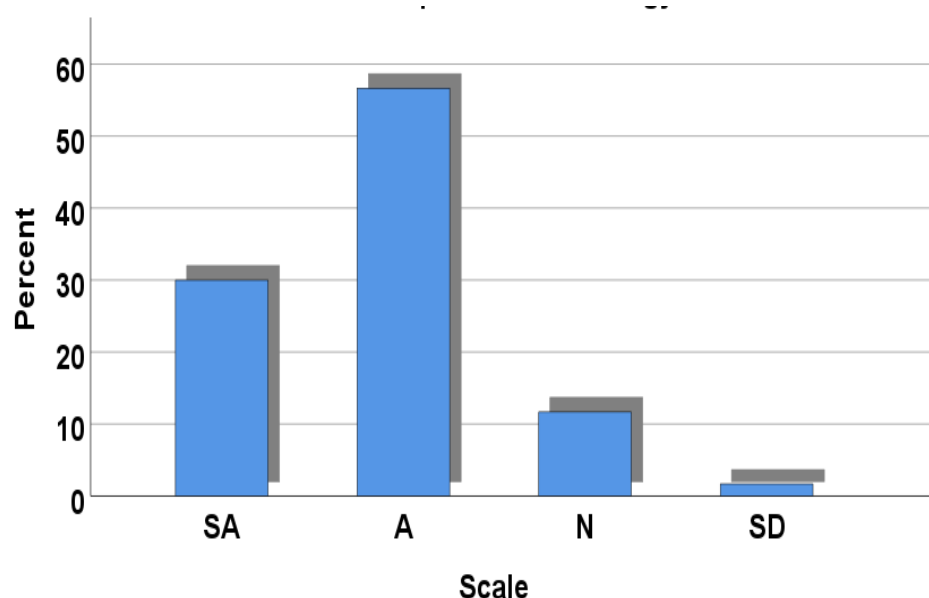


Table 4.9: “Artificial intelligence (AI) can become interesting and motivating for EFL learners when they use this automated technology.”

SR.	Options	Frequency	Percentage	Mean	St. Deviation
1	Strongly Agree	18	30.0	1.866	.747
2	Agree	34	56.7		
3	Neutral	7	11.7		

4	Disagree	0	0.0		
5	Strongly Disagree	1	1.7		
6	Total	60	100.0		

Table 4.9 shows students' opinions on the statement that Artificial Intelligence (AI) can become interesting and motivating for EFL learners when they use this automated technology. At the BS level, 30.0 percent of respondents strongly agreed, and 56.7 percent of respondents agreed with this statement. On the other hand, 0.0 percent were in opposition and 1.8 percent were strongly opposed. Only 11.7 percent of them remained indifferent to the message. It can be concluded that the majority of respondents (86.7 percent) had a positive attitude toward the statement. The result was that with a mean score of 1.866, with a standard deviation of 0.747. Figure 4.9 shows a graphical representation of the findings in the form of a bar chart.



CONCLUSION

This exploratory study explored learners' attitudes towards the integration of Artificial Intelligence (AI) in English language learning and teaching, and how this influences learner motivation and language knowledge. The results show overwhelmingly perceived positive experiences with AI integration. A large percentage of learners (86.7%) claimed that AI was a useful way to promote self-directed learning, and 83.3% felt AI was useful for skill development and language knowledge. As well, 88.3% said that AI made for an exciting and engaging learning experience. These results align with previous studies that demonstrate AI can promote learner autonomy and learner-centered personalized learning (Zawacki-Richter et al., 2019). However, in spite of the overall positive experiences and attitudes, a noteworthy percentage of learners (76.6%) were concerned that AI would mechanize emotional and human-centered learning. This suggests that while AI can provide efficient and even broader access to content, it is essential to integrate AI and other methods with careful consideration of

whether it enhances or undermines the emotional process of learning through human relationships. Nonetheless, most students (68.3%) did not consider AI as threatening the teacher-student relationship, suggesting that learners also may conceive of AI as more of a complementary, less changeable, and participatory approach arising from their motivations and agency to learn language within an ecological system of approaches to language learning.

The study also examined AI's role in learner motivation and in relation to improving learners' language proficiency. The trends in the data show that learners found AI-based learning empowering, with 86.7% of learners returning an affirmative answer regarding AI-based learning in terms of independence, collaboration, and interactivity. Furthermore, 90.0% believed that AI reduces the frustration and stress of trial-and-error learning, which is a significant barrier in traditional pedagogical models. These beliefs support the motivational affordances of AI-based learning and suggest that automation, immediate feedback, and interactive environments produce more enjoyable and less anxiety-provoking experiences for the learner.

Overall, the results of the investigation provide evidence of a majority of learners (80.79%) conceding that AI is beneficial in improving English language skills, while 85.36% responded positively to the motivation function for learning English provided by AI tools. While results have been mostly positive, particularly in terms of AI integration in language education, concerns about depersonalization or reduced emotional engagement warrant further study. It is therefore recommended that teachers embrace a blended approach to using AI, or technology within a well-considered pedagogical approach that offers human interactivity, empathy, and critical thinking. Future studies should consider how the emotional and social dimensions could be included within AI meaning-making and learning processes to offer a more humanistic, comprehensive, and sustainable learning experience.

REFERENCES

- Ali, M. M., Bashir, A., Ikram Anjum, M. A., & Mahmood, M. A. (2020). Impact of Mobile Assisted Language Learning on the Young ESL Learners' Vocabulary in Pakistan. *Journal of Research & Reflections in Education (JRRE)*, 14(1), <https://ue.edu.pk/jrre/articles/Article14-11.pdf>
- Chen, X., & Xu, D. (2020). Personalized learning in the era of artificial intelligence: Advances and challenges. *Journal of Educational Computing Research*, 58(3), 589-611.
- Huang, J., Saleh, S., & Liu, Y. (2021). A review on artificial intelligence in education. *Academic Journal of Interdisciplinary Studies*, 10(206). <https://doi.org/10.36941/ajis-2021-0077>
- Johnson, M. (2022). Adaptive learning technologies and student engagement. *International Journal of Language Learning*, 58(2), 89-102.
- Khan, W. M. (2023). Examining the Transformative Role of Artificial Intelligence in Language Skill Enhancement: A Case Study of BS English Students in Okara, Pakistan. *The Asian Bulletin of Big Data Management*, 3(1), 190-196.
- Loewen, S., Isbell, D. R., & Sporn, Z. (2019). The effectiveness of app-based language instruction for developing receptive linguistic knowledge and oral communicative ability. *Foreign Language Annals*, 52(3), 514-535.
- N, M., & Kumar N S, P. (2003). Investigating ESL Learners' Perception and Problem towards Artificial Intelligence (AI) -Assisted English Language Learning and Teaching. *World Journal of English Language*, 13(5), p290. <http://dx.doi.org/10.5430/wjel.v13n5p290>
- Neville, C. (2007) *Introduction to Research and Research Methods*. Bradford: University of Bradford.
- Nghi, T. T., Phuc, T. H., & Thang, N. T. (2019). Applying Ai Chatbot For Teaching A Foreign Language: An Empirical Research. 8(12), 6.

- Pettela, D. R. (2020). Artificial Intelligence applications to teach/learn English to secondary level students. *Artificial Intelligence*, 7(05), 2020.
- Rusmiyanto, R., Huriati, N., Fitriani, N., Tyas, N. K., Rofi'i, A., & Sari, M. N. (2023). The Role of Artificial Intelligence (AI) In Developing English Language Learner's Communication Skills. *Journal on Education*, 6(1), 750-757. <https://doi.org/10.31004/joe.v6i1.2990>
- Smith, J. (2023). The role of artificial intelligence in modern education. *Journal of Educational Technology*, 45(3), 123-135.
- Tahir. A. (2013). A Linguistic Evaluation of the Punjab Textbook Board's English book 'Book for Intermediate Classes. M.Phil. Thesis. The Islamia University of Bahawalpur.
- Warschauer, M. (2020). Learning in the cloud: How (and why) to transform schools with digital media. *Teachers College Press*.
- Yudhistiro, K. (2016). Pemanfaatan Teknologi Text-To-Speech Sebagai Media Pembelajaran Pada Laboratorium Bahasa Inggris. *Jurnal Teknologi Dan Manajemen Informatika*, 2(1), Article 1. <https://doi.org/10.26905/jtmi.v2i1.622>
- Zapata-Rivera, D., Vanwinkle, W., Shute, V., Underwood, J. S., & Bauer, M. (2007). English ABLE. *Proceedings of the 2007 Conference on Artificial Intelligence in Education: Building Technology Rich Learning Contexts That Work*, 323–330.