International Journal of Contemporary Issues in Social Sciences
Volume 2, Issue 4, 2023 ISSN(P):2959-3808 | 2959-2461

THE INVOLVEMENT OF ARTIFICIAL INTELLIGENCE (AI) IN ENHANCING COMMUNICATION SKILLS OF ENGLISH LANGUAGE LEARNERS

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Received: 05 November 2023 **Revised:** 24 November 2023 **Accepted:** 29 November 2023 **Published:** 08 December 2023

ABSTRACT

The current research delves into the realm of artificial intelligence (AI) and its impact on enhancing the communication skills of English Language Learners (ELLs) within the Khairpur district. Employing a qualitative research method, the study unfolded in the backdrop of Khairpur Mir's Sindh, focusing on a diverse population of 200 students from various departments of the university. This research sought to understand the nuances of AI's involvement in strengthening communication skills among male and female students. Data collection was conducted through email and Whats App, targeting undergraduate students. A qualitative approach was taken using a 5-point Likert scale to gather responses, and the collected data underwent thorough statistical analysis presented in columns. The study's outcomes were the confirmatory, indicating that the utilization of Artificial Intelligence (AI) proves beneficial for English Language Learners (ELLs). Furthermore, the results suggest that ELLs can effectively harness AI to ameliorate their overall communication skills, highlighting the promising potential of AI in language education.

Keywords: Artificial Intelligence (AI), English language learners, Communication skills, under Graduate university students.

INTRODUCTION

In the globalized world, English is extensively employed for communication, and obtaining language skills is crucial to meet the substantial demand for effective communication Maitlo, et al. (2023). In the process of learning English, the fundamental and most essential skills are regarded as speaking and listening Maitlo, et al. (2022). In the contemporary interconnected global landscape, proficiency in the English language has become a crucial skill for individuals navigating diverse personal, academic, and professional spheres (Sari, 2023). The ability to communicate effectively in English not only unlocks educational opportunities but also facilitates international collaboration and broadens global career prospects (Sari, 2021). With the escalating demand for English language skills, teachers and researchers are exploring innovative strategies to elevate language learning outcomes, and one prominently considered approach involves the integration of Artificial Intelligence (AI) technologies into English language instruction Shorey, et al. (2019). Distinguished by its capacity to emulate human intelligence, AI has undergone significant advancements, permeating various sectors of society. Within education, AI is increasingly recognized as a promising tool to

support and enhance language learning, particularly in the realm of developing learners' communication skills. AI presents the potential for personalized, interactive, and adaptive learning experiences tailored to the individual needs and preferences of learners Vinuesa, et al. (2020). The objective of AI into language learning environments opens up numerous possibilities for enhancing the four fundamental language skills: speaking, listening, reading, and writing. AI-powered technologies, such as speech recognition systems, Chabot's, virtual tutors, and language learning applications, have emerged as innovative tools that can offer learners interactive and immersive language learning experiences. These technologies feature real-time feedback, adaptive assessments, and personalized content, thereby holding the potential to augment learners' communication abilities and expedite the language acquisition process. Moreover, the use of AI in language instruction can foster learner independence, allowing individuals to access resources and receive feedback independently, anytime and anywhere Fitria, T. N. (2021). AI also facilitates the creation of individualized learning pathways that adapt to learners' progress, preferences, and learning styles Lashari, et al. (2023). The integration of AI in language learning environments is poised to address the diverse needs and challenges encountered by English language learners, including limited access to native speakers, a lack of immediate feedback, and the need for personalized attention. However, despite the potential advantages, the integration of AI into language learning poses significant considerations. Additionally, a deeper exploration and research are needed to understand the efficacy of AI in fostering sustained language proficiency and to determine the optimal integration of AI into instructional practices. Therefore, this study is designed to help ELLs in efficient language learning environments, empowering them to acquire the essential communication skills needed for success in today's interconnected world and fills the gap to understand Al use in English language communication through this study.

Significance of the Study:

The research is focusing on the practical use of (Al) artificial intelligence aspect of teaching and learning speaking, listening, reading, and writing skills in the English language. The study holds significance for English language learners as it guides regarding advance technology Al in devising new strategies of improving four skills of English through activities, and approaches to enhance proficiency in four skills of English language. This includes encouraging learners to utilize Al platform to enhance their English language skills. Furthermore, it aids learners in adapting and enhancing English language diverse approaches, methods, and activities based on student needs and technological advancements artificial Intelligence (AI) in learning communication skills of (ELLs). Additionally, this research can pave the way for the creation of informed policies that facilitate responsible and equitable adoption of AI in language education for future language learning methodologies and help language students in improving language skills through artificial intelligence.

Problem Statement:

The research problem in investigating the involvement of Artificial Intelligence (AI) in enhancing communication skills of English Language Learners (ELLs) revolves at university level in English linguistics and language classes to understand the impact and challenges associated with integrating artificial intelligence technologies into language education. While, AI holds capacity for adaptive learning experiences, the specific mechanisms through which it influences the development of English speaking, listening, reading and writing communication skills in English language remain underexplored at university level in district khairpur. The Issues related to the accessibility, acceptance, and efficiency of AI-driven language learning tools among diverse ELLs pose significant challenges. Addressing these research gaps was central for creating informed strategies that maximize the benefits of AI in fostering proficient and sensitive communication skills and fills the gap that is unexplored yet to previous studies regarding language proficiency among English language learners. However, numerous prior studies exist, but they may be constrained and not fully meeting these criteria. Therefore, there is a necessity for a study to

assess the attributes of AI in English communication skills.

Objectives:

- To assess the effectiveness of AI technologies in improving the overall communication skills of ELLs
- To explore the impact of AI on the development of speaking, listening, reading, and writing skills among ELLs.

Limitations of the Study:

Initially, the study is confined to the district level within the Sindh province district khairpur; however, there is potential for extension to encompass additional districts, divisions, and provinces at the national level. Furthermore, it has the capacity for further expansion to the continental or international scale. Secondly, the research is specifically focused on a single university, neglecting other educational institutions. Similarly, it exclusively targets use of Al of ELLs at the two hundred male female undergraduate level students, excluding consideration for other teachers and stake holders. Lastly, the constraints related to population and sampling are acknowledged; despite these limitations, the study maintains its inherent significance in future.

LITERATURE REVIEW:

As this literature review article centers on consolidating existing research and scholarly literature used in previous studies to learn about the effectiveness of AI in enhancing English language learners' communication skills and **effectiveness.** The Previous study consistently indicates the positive influence of AI on improving the communication skills of English language learners Rusmiyanto, et al. (2023). The effectiveness of an AI-powered speech recognition system in enhancing learners' communication skills were explored, revealing significant improvements in those who received feedback compared to those who did not (Cheema, et al. 2023: Chen et al. 2018), whose study demonstrated that the use of AI-based virtual teachers enhanced learners' speaking fluency and accuracy. Similarly, Wang and Liu, (2021) investigated an AI-driven language learning application's impact on oral proficiency, finding that learners who utilized the application exhibited improved speaking, listening, reading and writing communication skills and greater confidence in real-life communication. Collectively, these studies support the idea that AI technologies, such as speech recognition systems and virtual lecturers, positively contribute to the development of English language learners' communication skills.

Applying Al in Language Learning:

To integrate AI into language learning, several tools and policies must be established. This segment outlines the tools applicable for AI implementation in ESL/EFL contexts. Woo and Choi (2021) consolidated data on AI tools created from 2017 to 2020. Most of these tools employed machine learning and natural language processing, aiming to detect errors, offer feedback, and evaluate language proficiency. They documented various AI-based tools and their influence on language acquisition (Ai, 2017; Choi, 2019; Lashari, et al. 2023; Tai & Chin, 2020; and Woo & Choi, 2021).

The primary objective of English learning is to foster communicative competence, encompassing the adept utilization of language elements and vocabulary to enhance listening, speaking, reading, and writing skills. This extends to employing language for text production and comprehension of reading passage. To achieve these goals, it is imperative to leverage AI applications, such as simulation and communication programs, to emulate real-life conversational scenarios in English Zou, S. (2017). These tools facilitate practical training in language skills and incorporate educational games rooted in language learning. AI-based communication tools play a pivotal role in creating situations for refining pronunciation accuracy through sound drills and visual media. They offer exercises for describing and interpreting images and everyday situations, along with opportunities for listening and guided pronunciation practice. Additionally, these tools enable learners to hone their language skills and receive constructive feedback for improvement. Certain programs integrate language drills that systematically train communication abilities, ensuring learners attain proficiency levels Lashari, et al. (2023).

Speaking and Listening skills:

AI tools contribute to the enhancement of Speaking and listening skills through various means Zou, et al. (2023). These include **a**. Intelligent

personal assistants, such as Alexa, which are evaluated for comprehensibility, usability, and improvements in listening comprehension, speaking proficiency, and willingness; **b**. Group conversations involving programmable robots; **c**. Utilization of a neural network (NN)-based dialogue system for free conversation practice; and **d**. Development of an NN-based multimodal dialog system to comprehensively evaluate spoken language in terms of delivery, content, vocabulary, and grammar Lashari, et al. (2023).

Pronunciation:

The enhancement of pronunciation has been facilitated through the application of Deep Learning algorithms. Systems for diagnosing, training, and evaluating pronunciation were developed, incorporating attention mechanisms and various types of neural networks (e.g., convolution, long-short term memory). Notably, recent developments include a multimodal system illustrating speech features and an interactive tool generating personalized voice models Suryana,et al. (2020). These tools have proven effective in assisting learners to enhance their fluency, comprehensibility, tone, and pronunciation accuracy. In terms of learner perceptions, the tools were described as engaging, user-friendly, and beneficial for fluency, intonation, and tone training, according to Kao (2020).

Writing skill:

Improvements in writing have been facilitated through the utilization of tools such as machine translators, software designed for free-form writing, and a blended course incorporating automated feedback for self-correcting tasks. Additionally, specialized systems targeting citations and referencing, as well as the categorization of sentences into rhetorical categories, have contributed to these enhancements.

Reading Skill:

According to Maitlo et al., (2023) the primary issue faced by the students revolved around their writing abilities. Proficiency in written comprehension holds significant importance in language learning, necessitating heightened emphasis. Integrating technology with conventional instructional approaches enhances learners' reading skills, yielding superior outcomes compared to exclusive reliance on face-to-face methodologies Maitlo, et al. (2023).Therefore; application of machine learning was employed for identifying reading challenges and recommending suitable resources. Furthermore, a machine learning model was created to recognize pedagogical elements that differentiate proficient readers from less proficient ones, aiming to enhance instruction in ESL reading Jeevan, et al. (2023).

Pedagogical Implications of AI Integration in Language Learning:

The integration of AI in language learning carries significant pedagogical implications. Research by Zheng and Xing (2020) delved into the pedagogical benefits of an AI-powered adaptive learning platform, revealing its effective personalization of language instruction to meet individual learner needs. The study emphasized the importance of adaptive assessments and personalized feedback in fostering learners' progress and engagement. Additionally, Zhang et al. (2023) explored the role of AI-based chatbots in language learning, highlighting their capacity to provide immediate and interactive language practice opportunities. Learners reported increased motivation and engagement when interacting with chatbots, facilitating natural language conversations and offering personalized feedback. These findings underscore the pedagogical value of AI technologies in promoting learner autonomy and tailoring learning experiences.

Ethical Considerations in AI-Driven Language Learning:

While the potential benefits of AI in language learning are evident, ethical considerations must be addressed. Xu and Yuan (2021) emphasized the importance of privacy protection in AI-driven language learning platforms, stressing the need for clear data protection policies and consent mechanisms to handle learners' personal information securely. Furthermore, Buolamwini and Gebru (2018) highlighted the issue of algorithmic bias in AI technologies, exposing biases in facial recognition algorithms and suggesting the potential for bias in AI-driven language learning systems. Addressing biases and ensuring fair and unbiased access to language learning resources and assessments are crucial steps in promoting equity and inclusivity in AI-driven language learning environments. Additionally, more research is required to identify best practices for integrating AI technologies into

language instruction. Zhang et al. (2020) emphasize the importance of considering pedagogical strategies that combine AI with effective teaching methodologies to maximize the benefits of AI technologies in language learning contexts. The importance of the English language extends to individuals across diverse domains, including educators, students, sellers, buyers, healthcare professionals, patients, unemployed individuals, and those employed. Even individuals with limited education or from general backgrounds find it essential to acquire fundamental English language skills, particularly when engaging with technology Jalbani, et al. (2023).

METHODOLOGY AND POPULATION:

The structured examination of the process was termed research methodology (Jalbani, et al. 2023; Ahmad, et al. 2023) the researcher used qualitative methodology and focused on use of Al in improving English skills of ELLs. The researcher focused only one university of district Khairpur, name did not mention by the researcher. He used to choose undergraduate students of various departments with an equal representation of male and female participants (200 in total) in the study sample from all categories.

Study Tools and Instruments:

The questionnaire for this study consisted of phrases categorized under two axes: (Exploring the Role of AI in the English Language Learning Environment) and (Leveraging AI to Enhance the ELLs speaking, listening, reading, and writing skills). Participants were asked to rate their agreement on a Likert scale ranging from one to five, with five possible response options.
(Strongly agree, agree, disagree, strongly disagree, neutral).

RESULTS AND ANALYSIS PROCESS:

Data were collected through shared survey distributed through an online link, watts sap and Email directing participants to mark the option box before the asked questions and results were analyzed in columns. The researcher incorporated all the results in columns below separately.

Role of AI in the English Language Learning

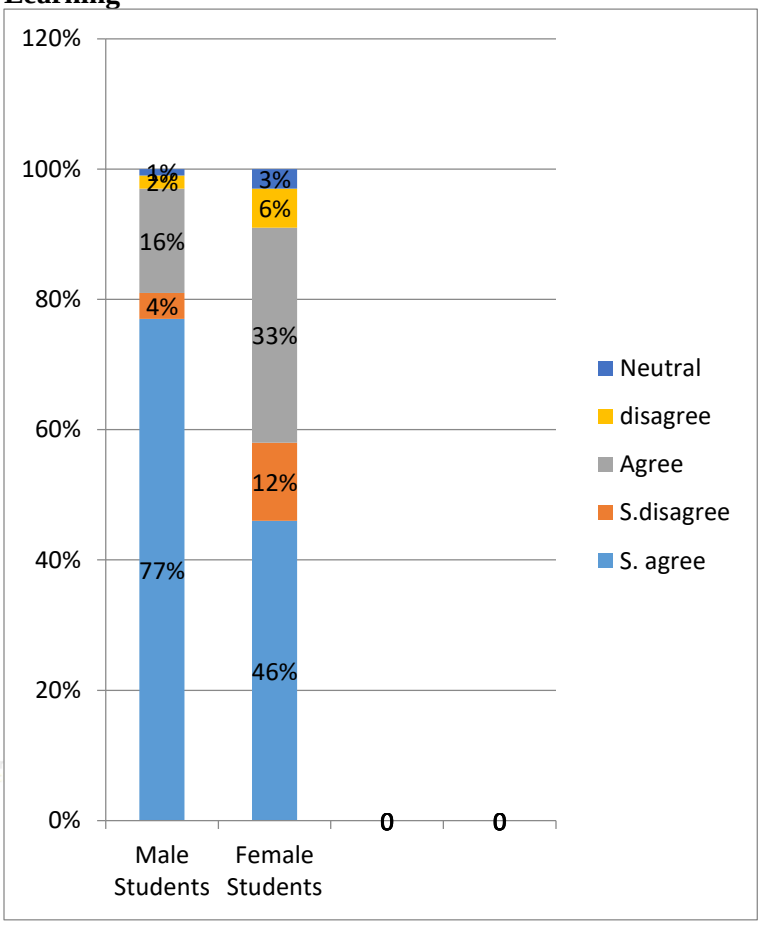

Figure 1: According to the detailed statistical analysis provided in response to the statement above, which explores the role of AI in English Language Learning from the perspectives of male and female students separately, it is discerned that 77% of male respondents and 46% of female respondents strongly agree on the essential role of artificial intelligence (AI). Conversely, 4% of male respondents and 12% of female respondents express strong disagreement. Additionally, 16% of male respondents and 33% of female respondents agree on the crucial use of AI. On the other hand, 2% of male respondents and 6% of female respondents express regretful disagreement. Finally, 1% of male respondents and 3% of female respondents remain neutral regarding the enhancement of AI usage in

educational institutions to improve English language communication skills.

AI to Enhance the ELLs speaking, listening, reading, and writing skills

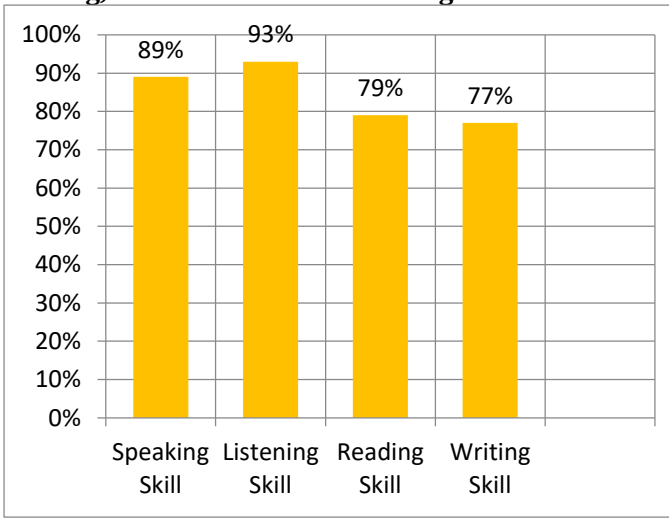

Figure 2: Based on the statistical analysis presented in response to the statement above concerning the communication skills of English Language Learners (ELLs), the findings highlighted a positive impact. Specifically, 89% of the participants report an enhancement in their speaking skills with the utilization of artificial intelligence. Moreover, 93% of respondents share similar sentiments in listening skill. Additionally, 79% note improvements in their reading skills, while 77% indicate successful attainment of writing composition targets. These results underscore the crucial role of artificial intelligence (AI) in advancing the skills of ELLs.

DISCUSSION:

The survey included two questions from the questionnaire, yielding results that were largely in support or partially contradictory. This study contributes to the existing body of literature, which broadly aligns on certain key points. These include the recognition of AI's significance in enhancing the language proficiency of English students, acknowledging the potential advantages of integrating AI into ELLs and emphasizing on the performance and learners' collaboration in achieving these objectives. To put it differently, there is a need for students to undergo more effective integrate AI technology into their learning speaking, listening, reading, and writing skills. Mastering a new language poses its own set of challenges, but the incorporation of AI technology can facilitate more dynamic interactions between instructors and students in ESL classrooms, reducing the traditional learning curve. The integration of AI technology has the potential to significantly enhance students' communication skills, particularly in terms of oral communication skills. While obstacles may arise, AI can empower students to excel by emphasizing crucial aspects in both written and verbal communication.

CONCLUSION:

Since the beginning of the twentieth century, digital technology has been integrated into various educational models. As AI becomes more widely adopted, there is a noticeable shift in the educational landscape. This study specifically examined the advantages of incorporating AI into linguistics verbal and written communication skills of ELLs. The integration of AI has the potential to elevate education to unprecedented levels of excellence. A resilient educational system can be established AI-assisted technology to empower communication skills of English language learners. These technologies can aid students in acquiring information and developing skills crucial for success in today's technologically advanced world. The study's findings revealed consistent perspectives among ELLs regarding the use of AI tools to support language learning easily. In conclusion, this study underscores the significant role of AI in the teaching and learning processes of English language skills. AI positively influences ELLs education by streamlining speaking, listening, reading and writing skills learning procedures.

RECOMMENDATION:

Based on the findings of the present study, the researchers propose the following recommendations: Educate both teachers and students on the significance of AI technology in the classroom and its effective utilization for a diverse set of objectives. Provide need based material to students. Instruct learners on the proper utilization of AI tools for language learning purposes. Promote the implementation of artificial intelligence (AI) technology in higher education.

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