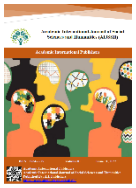
Academic International Journal of Social Sciences and Humanities
ISSN: 2984-7729
Aca. Int. J. Soc. Sci. H. 2025; 3 (2) 01-06
Journal homepage: http://www.aipublishers.org/aijssh



Exploring Sudanese Faculty Members' Perceptions of AI Tools in Enhancing Speaking Skills

Sawsan Alfadul Alabass

English Department, College of Languages, Sudan University of Science and Technology, Sudan

Corresponding Author Email: sawsanalfadul79@gmail.com

Article Info.
Article history:
Receive 2 July 2025
Revised 26 July 2025
Accepted 7 September 2025
Published 11 October 2025
Keywords:
AI tools, speaking skills, language education, Sudanese faculty, higher education, personalized learning, teacher training
How to cite:
Sawsan Alfadul Alabass (2025). Exploring Sudanese Faculty Members' Perceptions of AI Tools in Enhancing Speaking Skills. Aca. Intl. J. Soc. Sci. H. 3 (2) 01-06
https://doi.org/10.59675/S321

Abstract:
This study investigates the perceptions of 93 Sudanese faculty members (51 female, 42 male) at Central Governmental Universities in Khartoum regarding the use of Artificial Intelligence (AI) tools to improve students' speaking skills. Utilizing a quantitative approach through online questionnaires, the research identifies both the advantages and obstacles associated with integrating AI into language instruction. Findings reveal that while most faculty members view AI tools positively, especially for promoting interactivity, individualized learning, and real-time feedback there remain challenges related to training needs and infrastructural limitations. The paper concludes with actionable recommendations for effective AI integration in higher education settings in Sudan.

Introduction

Artificial Intelligence (AI) has emerged as a transformative force in education, offering tools that personalize instruction, automate feedback, and promote engagement. In the context of Sudanese higher education, especially in Khartoum's Central Governmental Universities, there is a growing need to enhance students' oral communication skills in English. Traditional methods often fail to provide sufficient individualized speaking practice. This study explores the perceptions of Sudanese faculty members regarding the integration of AI tools into English language instruction with a focus on speaking skills.

Research Problem

Despite global advances in AI for language learning, little is known about how Sudanese faculty perceive these technologies. Understanding their perceptions is critical to implementing AI solutions that are contextually relevant and pedagogically effective.

Objectives

1. To assess Sudanese faculty members' perceptions of AI tools in enhancing speaking skills.
2. To explore the perceived benefits and limitations of using AI in language instruction.
3. Improving institutional and individual factors influencing AI adoption.
4. To provide evidence-based recommendations for AI integration in Sudanese universities.

Literature Framework

According to Chisega-Negrilă (2023), AI chatbots have been widely utilized in education, particularly in language learning, due to their capacity to increase efficiency, engagement, and accessibility. Understanding learners' attitudes toward AI technologies is essential to improving educational experiences, especially in EFL contexts (Yuliani et al., 2024; Daweli & Mahoub, 2024).

AI-powered conversational agents, such as chatbots, can help EFL learners improve their speaking skills through interactive engagement. Conversational AI enhances expression and fluency (Mahmoud, 2022). Agents like AutoTutor facilitate personalized dialogue by adapting to learners' emotional and cognitive states, thus enhancing learning outcomes (Graesser et al., 2014).

Furthermore, animated agents such as Baldi model realistic speech patterns and provide visual reinforcement to enhance pronunciation and vocabulary (Massaro et al., 2006). These agents offer supportive feedback and explanations to strengthen learner performance (Yugo, 2012).

Recent studies (Kovalenko & Baranivska, 2024) emphasize the dual potential and challenges of AI in enhancing second language acquisition. AI-assisted instruction fosters L2 speaking proficiency and learner autonomy through personalized learning strategies (Qiao & Zhao, 2023). Multiple studies confirm AI's positive impact on speaking skills development, self-regulation, and learner engagement (Kang, 2022; Hill et al., 2015; Junaidi, 2020).

Hill et al. (2015) found that learners engaged in more extended interactions when using AI tools than when communicating with peers. Junaidi (2020) also reported improvements in learners' fluency, lexical range, grammatical accuracy, and pronunciation. AI-driven systems personalize learning experiences based on real-time learner performance and style, thus motivating engagement and self-paced improvement (Zhong, 2024).

Fathi et al. (2024) noted that AI-mediated speaking instruction improved learners' speaking performance and was favorably received by students. According to Michot et al. (2024), spontaneous speaking was more achievable using AI-enhanced tools. Rusmiyanto et al. (2023) argued that AI improved participation and interaction in speaking tasks, thus strengthening learners' communicative competence.

Fluency in EFL, defined as the ability to speak smoothly and confidently across diverse contexts (Deshmukh, 2024), is a crucial outcome of AI-supported learning. Yenkimaleki and van Heuven (2023) established that pedagogic interventions significantly enhance EFL learners' oral fluency.

Moreover, structured techniques such as conversational gambits (Akbari, 2018) and chunking (Monica, 2022) were found to increase fluency. Yu (2022) emphasized the role of formulaic sequences in improving fluency and compensating for short-term memory limitations.

Finally, learners' attitudes toward AI tools are strongly influenced by perceived usefulness and ease of use. Learners are more likely to adopt educational technologies when they believe these tools will improve learning outcomes and are easy to operate (Chen & Yang, 2024). Confidence in using

technology—linked to self-efficacy, acceptance and willingness to integrate AI into language learning. Social support from peers and teachers further boosts learners'

Methodology

A descriptive quantitative method was used. An online questionnaire with Likert-scale and open-ended items was administered during this academic year to 93 faculty members. Responses were analyzed using descriptive statistics and thematic interpretation.

Table 1.0: Distribution of Participants by University Affiliation

University	Number of Participants
University of Khartoum	23
Sudan University of Science and Technology	20
Al-Neelain University	18
Omdurman Islamic University	17
University of Bahri	15
Total	**93**

This distribution reflects balanced participation across major public universities, providing a representative insight into the perceptions of Sudanese faculty members.

Results

The faculty responses are summarized in the following tables, with each description expanded to include interpretation of the number of respondents.

Table 1: AI tools can effectively enhance students' speaking skills (n = 93)

Response	Percentage	Number of Respondents
Strongly Agree	50.5%	47
Agree	31.2%	29
Neutral	6.5%	6
Disagree	6.5%	6
Strongly Disagree	5.4%	5

Table 1 above shows that a large proportion of faculty members (76 respondents) expressed agreement, reflecting widespread confidence in AI's effectiveness for speaking skill development. Only 11 expressed disagreements, indicating marginal skepticism

Table 2: AI tools provide valuable interactive speaking practice (n = 93)

Response	Percentage	Number of Respondents
Strongly Agree	44.1%	41
Agree	32.2%	30
Neutral	9.7%	9
Disagree	8.6%	8
Strongly Disagree	5.4%	5

Table displays that a total of 71 respondents affirmed that AI enhances interaction. The remaining 22 responses

Table 3: AI tools are beneficial for personalized learning (n = 93)

Response	Percentage	Number of Respondents
Strongly Agree	41.9%	39
Agree	31.2%	29
Neutral	10.8%	10
Disagree	9.7%	9
Strongly Disagree	6.5%	6

Aca. Intl. J. Soc. Sci. H. 3 (2) 01-06 DOI: https://doi.org/10.59675/S321

Table 3 indicates that 68 out of 93 faculty members see AI as a valuable tool for customization. The 15 negative responses suggest a need to demonstrate more specific applications.

Table 4: AI tools offer timely and constructive feedback (n = 93)

Response	Percentage	Number of Respondents
Strongly Agree	39.8%	37
Agree	38.7%	36
Neutral	8.6%	8
Disagree	7.5%	7
Strongly Disagree	5.4%	5

Table 4 shows that 73 participants favor AI's feedback functions. This suggests strong alignment with the need for formative speaking assessment tools.

Table 5: Integrating AI tools is a positive development (n = 93)

Response	Percentage	Number of Respondents
Strongly Agree	42.5%	40
Agree	35.5%	33
Neutral	11.8%	11
Disagree	6.5%	6
Strongly Disagree	3.7%	3

Table 5 displays that combined 73 faculty view AI integration positively, affirming that technological innovation is welcomed in Sudanese universities.

Table 6: Teachers require adequate training to use AI tools (n = 93)

Response	Percentage	Number of Respondents
Strongly Agree	53.8%	50
Agree	35.4%	33
Neutral	5.4%	5
Disagree	3.2%	3
Strongly Disagree	2.2%	2

Table 6 above shows the strongest consensus among respondents (89%, or 83 individuals), underscoring the essential role of training in AI adoption.

Table 7: AI tools can address individual speaking challenges (n = 93)

Response	Percentage	Number of Respondents
Strongly Agree	30.1%	28
Agree	34.4%	32
Neutral	12.9%	12
Disagree	12.9%	12
Strongly Disagree	10.8%	10

While 60 faculty agreed, in table 7, 22 showed doubt. This divergence indicates differing views on AI's adaptability to individual learner profiles

Table 8: AI tools motivate students to practice speaking (n = 93)

Response	Percentage	Number of Respondents
Strongly Agree	31.2%	29
Agree	29.0%	27
Neutral	20.4%	19
Disagree	10.8%	10
Strongly Disagree	8.6%	8

Table 8 displays that a total of 56 respondents supported the motivational impact of AI, while 18 disagreed, and 19 were neutral—indicating mixed perceptions

Table 9: Sufficient resources and support are available (n = 93)

Response	Percentage	Number of Respondents
Strongly Agree	29.0%	27
Agree	25.8%	24
Neutral	10.8%	10
Disagree	18.3%	17
Strongly Disagree	16.1%	15

Only 51 faculty perceive adequate support, while 32 indicate the opposite. This points to critical infrastructural deficiencies.

Table 10: AI adoption faces significant challenges (n = 93)

Response	Percentage	Number of Respondents
Strongly Agree	34.4%	32
Agree	36.5%	34
Neutral	15.1%	14
Disagree	6.5%	6
Strongly Disagree	7.5%	7

The last table shows that 66 respondents agreeing, this table confirms consensus on the existence of barriers such as infrastructure and training gaps.

Discussion

The data affirm that Sudanese faculty members generally hold positive perceptions of AI's role in language education, particularly in delivering feedback, personalization, and student engagement. Tables 1 through 5 show a consistent pattern of high agreement (over 75%) regarding the benefits of AI in enhancing speaking skills. Table 6 stands out, with nearly 90% of participants stressing the importance of adequate training. Conversely, Tables 7 and 9 reflect areas of concern, namely the limitations of AI in addressing individual learner challenges and the lack of institutional resources. Table 10 underscores that while enthusiasm exists, practical barriers to AI adoption remain.

Conclusion

Sudanese faculty members recognize the potential of AI to enhance speaking skills in English language education. However, for successful adoption, there must be institutional investments in infrastructure and comprehensive teacher training. Bridging the gap between perception and implementation is key to realizing the full benefits of AI tools in Sudanese universities.

Recommendations

1. Implement national and university-level training programs for educators.
2. Provide accessible, context-relevant AI tools.
3. Improve digital infrastructure across universities.
4. Conduct further longitudinal research on AI in language pedagogy.

Aca. Intl. J. Soc. Sci. H. 3 (2) 01-06 DOI: https://doi.org/10.59675/S321

References

1. Akbari, J. (2018). Enriching speaking fluency through conversational gambits and routines among Iranian intermediate EFL learners. *International Journal of Research in English Education*, 3(1), 35–43. https://doi.org/10.29252/IJREE.3.1.35
2. Chen, X., & Yang, Y. (2024). Exploring EFL learners' technology acceptance in online learning in collaborative education programs. *Journal of Education, Teaching and Social Studies*, 6(2), 195. https://doi.org/10.22158/jetss.v6n2p195
3. Chisega-Negrilă, A.M. (2023). The new revolution in language learning: The power of artificial intelligence and Education 4.0. *Bulletin of "Carol I" National Defense University*, 12(2), 16–27. https://doi.org/10.53477/2284-9378-23-17
4. Daweli, T.W., & Mahoub, R.A.M. (2024). Exploring EFL learners' perspectives on using AI tools and their impacts in reading instruction: An exploratory study. *Arab World English Journal*, 160–171. https://doi.org/10.24093/awej/call10.11
5. Deshmukh, S.P. (2024). Factors influencing English speaking fluency among second language learners. *Educational Administration: Theory and Practice*, 30(5), 6410–6414. https://doi.org/10.53555/kuey.v30i5.3951
6. Fathi, J., Rahimi, M., & Derakhshan, A. (2024). Improving EFL learners' speaking skills and willingness to communicate via artificial intelligence-mediated interactions. *System*, 121, 103254. https://doi.org/10.1016/j.system.2024.103254
7. Graesser, A.C., Li, H., & Forsyth, C. (2014). Learning by communicating in natural language with conversational agents. *Current Directions in Psychological Science*, 23(5), 374–380. https://doi.org/10.1177/0963721414540680
8. Hill, J., Ford, W.R., & Farreras, I.G. (2015). Real conversations with artificial intelligence: A comparison between human-human online conversations and human–chatbot conversations. *Computers in Human Behavior*, 49, 245–250. https://doi.org/10.1016/j.chb.2015.02.026
9. Junaidi, J. (2020). Artificial intelligence in EFL context: Rising students' speaking performance with Lyra virtual assistance. *International Journal of Advanced Science and Technology*, 29(5), 6735–6741.
10. Kang, H. (2022). Effects of artificial intelligence (AI) and native speaker interlocutors on ESL learners' speaking ability and affective aspects. *Multimedia-Assisted Language Learning*, 25(2), 9–43.
11. Kovalenko, I., & Baranivska, N. (2024). Integrating artificial intelligence in English language teaching: Exploring the potential and challenges of AI tools in enhancing language learning outcomes and personalized education. *Journal of Language & Education*, 2024(1), 86–95. https://doi.org/10.61345/2734-8873.2024.1.9
12. Mahmoud, R.H. (2022). Implementing AI-based conversational chatbots in EFL speaking classes: An evolutionary perspective. https://doi.org/10.21203/rs.3.rs-1911791/v1
13. Massaro, D.W., Liu, Y., & Chen, T.H. (2006). A multilingual embodied conversational agent for tutoring speech and language learning. *Proceedings of the Ninth International Conference on Spoken Language Processing (Interspeech 2006–ICSLP)*, Universität Bonn, Germany, 17–21 September, pp. 825–828.
14. Michot, J., Hürlimann, M., Deriu, J., et al. (2024). Error-preserving automatic speech recognition of young English learners' language. https://doi.org/10.48550/arxiv.2406.03235
15. Monica, M. (2022). Enhancing EFL undergraduate students' speaking fluency through chunking