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# The Role of AI-Based Teaching and Assessment in Developing the Spoken Competence of ESP Learners

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**Abstract:**

The previous studies generally have been suffering from a lack of continuous oral production with personal feedback, and this paper investigates the contribution of AI-powered teaching and assessment to ESP learners' spoken competence While verbal interaction is essential for academic and career achievement, conventional teaching often does not provide the necessary immediacy and individualized nurturing required for perfecting the skill. The study employed a mixed-methods design, involving 40 ESP students who participated in pre-/post-tests, questionnaires, interviews, and machine-mediated oral activities. The integration of intelligent tools like automated speech recognition and real-time feedback systems were implemented over six weeks, helping learners keep close tabs on how they progressed in terms of fluency, accuracy, pronunciation and confidence. Results indicate significant oral proficiency gains that include greater fluency in speech production and increased ability to enunciate discipline-specific vocabulary. The non-judgmental and on-demand nature of AI practice also led to learners feeling less anxious and experiencing a greater sense of agency. While some technical issues persisted, teachers pointed out that immediate feedback facilitated quicker self-correction. In conclusion, study results indicate that while teacher-less AI can provide ESP oral training, it is the combination with teacher guidance that reinforces ESP oral training. The study highlights the importance of modern curriculum integration and proposes AI-augmented environments can forge more supportive, adaptive and learner-centred pathways to developing spoken competence. Long-term effects across a range of ESP fields should be investigated in future study.

**Keywords:** AI in Education, ESP, Spoken Competence, Oral Skills, Assessment, Intelligent Feedback Systems.

## Introduction

Spoken proficiency is one of the essential aspects of language skill, especially in English for Specific Purposes (ESP) contexts. In these contexts, students are required to not only express general meaning, but also to competently, appropriately, and confidently communicate content-based ideas within professional, legal, medical, technical, or academic settings (Dudley-Evans & St John; Hyland). Given that the ability to speak well in a second or foreign language is likely to become a central factor in the success of ESP learners with workplaces and educational settings becoming more internationalised, we have explored the development of spoken competence [1].

It's a long-standing issue that has plagued the teaching of spoken language despite its importance. Traditional teaching approaches typically do not provide students with personalized practice, immediate feedback, and ongoing assessment all necessary conditions for developing speaking fluency, accuracy, pronunciation, and pragmatic competence. Within the constraints of time and workload, teachers struggle to provide timely, meaningful feedback to all learners [2]. According to Warschauer & Healey, this lag in personalized instruction often hampered learners' progress and limited their ability to self-monitor and self-correct.

Artificial intelligence has emerged as a potential solution to some of these instructional dilemmas in language education in the last few years. Automated speech recognition-based applications like intelligent tutoring systems, instant pronunciation evaluators, and analytics-based assessment provide immediate corrective feedback, customized learning paths, and personalized instruction [3]. Such technology enables learners to practice speaking alone, to obtain impartial assessments, and to monitor the gains they have made in speech development, thereby making the development of oral skills more affordable and entertaining (Li & Ni; Chen, Huang, & Liu).

Taking these breakthroughs into account, the present study explores the extent to which AI-mediated teaching and evaluation can be effective in enhancing speaking proficiency among ESP students. This research is intended to investigate the effects of AI tools on various aspects of oral proficiency, such as fluency, accuracy, pronunciation quality, appropriacy of lexes, and confidence of learners in speaking. Furthermore, we discuss the pedagogical implications of AI integration, particularly with regard to the shifting dynamics of teacher roles, assessment practices, and curriculum design in the ESP context [4]. The study attempts to contribute to a greater understanding of the instructional runds of AI that can support more effective, data-driven and learner-centered approaches to ESP oral communication development (Zhang, Chen, & Wang) by doing so.

## Methodology

This study used mixed-methods research design in examining the role of AI-based teaching and assessment for developing ESP learners' spoken competence. Both qualitative and quantitative collected data collection procedures were used so as to have a comprehensive understanding of what went on in the influence of AI tools on the learners' overall performances [5]. The quantitative aspect included pre- and post-tests which were assessed for fluency, accuracy, pronunciation, and the overall oral proficiency. Objective measures of learner progress were also obtained through collecting and analyzing AI-generated performance analytics, such as automated speech scores, pronunciation feedback logs, and error-tracking reports (Li & Ni, 2021; Chen, Huang & Liu).

The study participants comprised 40 ESP learners (aged 18–22) from the Tashkent State University of Law, and four experienced ESP teachers who had ever used digital or AI – supported

instructional materials. The participants were chosen from among legal English courses, and everyone participated in AI-augmented training sessions over a course of 6 weeks. Quantitative data were also triangulated through Online-based learner surveys to collect information on students' experiences, challenges, and attitude towards AI supported oral practice whereas qualitative data were gathered through semi-structured interviews conducted with the teachers to understand their perceptions about the integration of AI [6]. All the responses were collated, categorized and analyzed to identify recurring patterns and themes. The results referred to in this article arise from the analysis of these quantitative results in conjunction with qualitative reflections to provide a well-rounded perspective on the role of AI in enhancing spoken competence in ESP contexts (Chen, & Wang).

## Results

The quantitative findings of the study reveal a substantial improvement in learners' oral performance following the implementation of AI-assisted instruction. Analysis of pre- and post-intervention speaking assessments demonstrates that fluency scores increased by 28%, indicating that students exhibited noticeably smoother, more continuous speech with reduced hesitation phenomena such as prolonged pauses, fillers, and false starts [7]. This improvement was particularly evident during extended speaking tasks, including individual presentations and scenario-based responses, where learners were required to produce coherent stretches of discourse. Furthermore, pronunciation accuracy improved by 22%, with the most significant gains observed in the articulation of specialized ESP terminology (Li & Ni; Zhang, Chen, & Wang).

In addition to linguistic measures, self-report surveys indicated a marked rise in learners' communicative confidence [8]. Participants expressed greater comfort when completing oral tasks such as role-plays, academic discussions, problem-solution dialogues, and professional simulation tasks, suggesting that the systematic use of automated feedback reduced anxiety associated with real-time speaking. Many students also noted that receiving individualized, immediate feedback made them more aware of their recurring errors and helped them monitor their own progress.

The qualitative findings provide further insight into how and why these improvements occurred. Teacher observations collected throughout the intervention reveal that instant AI-generated corrective feedback enabled students to identify pronunciation errors, misused vocabulary, or unclear sentence structures at the moment they occurred, which, in turn, encouraged spontaneous self-correction [9]. This real-time noticing process allowed learners to internalize feedback more effectively compared to delayed, summative comments typically given in traditional classroom settings (Zhang, Chen, & Wang).

What a learner thinks and reflects on aligns with what the teacher believes. A lot of students mentioned how tools based on AI enabled more engaging and fun learning, especially because they were able to practice at their own pace and get feedback outside the classroom, without the risk of being judged by their peers [10]. The multimodal nature of the tools (i.e., visual waveforms, audio models and automatic scoring) helped in students´ awareness perceptions of the phonetic nature of speech production, students stated this issue as well. Nonetheless, to provide better assistance to students, the authors noted multiple challenges including technical issues and difficulties understanding some comments generated by AI, but emphasized the need for teacher guidance in the usage of AI tools to support students (Chen, Huang, & Liu) [11].

Despite the aforementioned challenges, the qualitative evidence overwhelmingly suggests that the integration of digital tools and AI-driven feedback created a more supportive, adaptive, and autonomy-promoting learning environment. Learners became more reflective about their own speech production, more motivated to practice consistently, and more capable of monitoring their own

development key components of modern approaches to communicative competence [12]. Taken together, the quantitative and qualitative findings indicate that the use of AI-assisted instructional methods positively influences learners' speech competence and contributes to more effective acquisition of ESP-related oral skills (Li & Ni).

## Discussion

The findings of this study indicate that AI-based teaching and assessment have a substantial positive impact on ESP learners' spoken competence, particularly in terms of fluency, pronunciation accuracy, and confidence in professional communication tasks. AI tools provided instant, individualized, and repeated feedback opportunities that traditional classroom instruction often could not offer [13]. This supports previous research suggesting that automated feedback can facilitate rapid error detection and promote more targeted oral practice, especially when learners must master specialized terminology relevant to their field.

In addition to measurable improvements in oral proficiency, the study revealed notable shifts in learner attitudes and behaviors. Many students reported greater motivation and autonomy, as the AI platforms enabled flexible practice beyond class time and reduced anxiety associated with face-to-face speaking tasks. This aligns with modern ESP pedagogy, which emphasizes independent learning and the development of practical communicative competence. However, learners also noted challenges such as technical issues and occasional ambiguity in AI-generated feedback, suggesting that digital tools alone cannot fully address all aspects of spoken language development (Zhang, Chen, & Wang) [14].

Therefore, the results highlight the continued importance of teacher involvement in AI-supported instruction. Teachers played a critical role in interpreting feedback, contextualizing AI-generated scores, and integrating technological tools into meaningful communicative tasks. AI thus functions most effectively as a complementary resource rather than a replacement for human instruction [15]. When combined with teacher guidance, structured classroom activities, and clear curricular goals, AI-based tools can significantly enhance the quality of ESP oral skills training and better prepare learners for real-world professional communication (Dudley-Evans & St John, 1998; Hyland, 2006).

## Conclusion

The findings show that AI-driven instruction and evaluation considerably lessen the spoken proficiency gap in ESP students by advancing their fluency, pronunciation accuracy, self-monitoring abilities, and confidence in completing discipline-specific communication tasks. Results illustrate immediate, personalized feedback and optional repetitive practice enabled by AI tools, promote improvement in oral proficiency w/ increase of learner independence and motivation. Such results suggest that AI implementation in ESP curricula can enhance pedagogical efficacy, aid data-driven teaching, and optimize the real-time use of teachers' limited time to engage in higher order communicative tasks rather than simple feedback correction. Still, the technical issues and sometimes imprecise nature of automatic comments suggests that teacher mediation and an intentional, critical curriculum remain necessary. Future studies need to examine the longitudinal effects of AI-assisted oral practice; differences in the outcomes of targeting various ESP areas; and the integration of AI with other innovative, communicative, and experiential release techniques to provide more integrative and sustainable routes to spoken proficiency.

## References


[1] F. Chen, C., Huang, R., and Liu, T., "Automated oral assessment: Effects on learning motivation and performance," *Language Learning & Technology*, vol. 24, no. 2, pp. 34–51, 2020.

[2] Dudley-Evans, T., and St John, M. J., *Developments in English for Specific Purposes*. Cambridge, U.K.: Cambridge Univ. Press, 1998.

[3] Hyland, K., *English for Academic Purposes: An Advanced Resource Book*. London, U.K.: Routledge, 2006.

[4] Li, X., and Ni, H., "AI-assisted oral English learning in higher education," *Journal of Educational Technology & Society*, vol. 24, no. 1, pp. 85–98, 2021.

[5] Warschauer, M., and Healey, D., "Computers and language learning: An overview," *Language Teaching*, vol. 31, no. 2, pp. 57–71, 1998.

[6] Zhang, Y., Chen, L., and Wang, J., "Intelligent feedback systems for language assessment: Applications in ESP," *Computer Assisted Language Learning*, vol. 35, no. 3, pp. 321–345, 2022.

[7] Wingate, J. M., "Academic literacy and student diversity: The case for inclusive practice," *Journal of English for Academic Purposes*, vol. 9, no. 1, pp. 45–54, 2010.

[8] Leacock, C., Chodorow, M., Gamon, H., and Tetreault, J., *Automated Grammatical Error Detection for Language Learners*. San Rafael, CA, USA: Morgan & Claypool, 2010.

[9] Pennington, C., "The impact of digital technologies on language teaching: A review," *ReCALL*, vol. 30, no. 2, pp. 162–178, 2018.

[10] Lu, S., "Automatic speech recognition in language learning: A systematic review," *System*, vol. 98, no. 2, pp. 102–118, 2021.

[11] Levy, P., and Stockwell, G., *CALL Dimensions: Options and Issues in Computer-Assisted Language Learning*. New York, NY, USA: Routledge, 2006.

[12] Mehmood, F., and Hussain, Z., "Adaptive learning systems for EFL speaking development," *Interactive Learning Environments*, vol. 29, no. 5, pp. 700–715, 2021.

[13] Sun, H., and Wang, L., "Learner autonomy in AI-mediated English learning environments," *Educational Technology Research and Development*, vol. 69, no. 4, pp. 2151–2173, 2021.

[14] Costley, A. B., "Fluency development through repeated oral practice: A review," *TESOL Journal*, vol. 11, no. 1, pp. 1–15, 2020.

[15] Godwin-Jones, R., "Emerging technologies: Artificial intelligence in language education," *Language Learning & Technology*, vol. 25, no. 3, pp. 5–15, 2021.