EDUCATIONAL SCIENCES: THEORY & PRACTICE eISSN: 2148-7561, ISSN: 2630-5984

Received: 03 April 2025
Revision received: 05 May 2025
Accepted: 20 June 2025

www.jestp.com

DOI 10.12738/jestp.2024.2.018♦ **June** 2025 ♦ 25(2) ♦ 44-57

Article

Enhancing Chinese EFL Learners' Speaking Proficiency through AI-Integrated POA

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Abstract

Speaking proficiency remains a substantial obstacle for Chinese English as a Foreign Language (EFL) learners, particularly in areas with limited educational resources. This study explores the incorporation of ChatGPT, an artificial intelligence-based large language model, into the Production-Oriented Approach (POA) to improve the oral English competence of university students in Anhui Province, China. Employing a mixed-methods approach, data were gathered from 240 students and 8 instructors to evaluate students' perceptions of ChatGPT's perceived ease of use and perceived usefulness throughout the motivating, enabling, and assessing stages of the POA. Additionally, the study assessed improvements in key speaking components, including fluency, accuracy, and pronunciation. The findings reveal notable advancements in speaking proficiency, with progress observed in fluency and accuracy, facilitated by personalised, interactive feedback and structured support. Interview data from instructors also indicated that ChatGPT contributed to lowering learners' anxiety and enhancing their autonomy by offering a low-pressure conversational setting. These results suggest that the integration of AI-driven tools such as ChatGPT within established pedagogical models can effectively mitigate speaking challenges in EFL education, offering viable and scalable strategies for similar under-resourced educational environments.

Keywords

Artificial Intelligence (AI), ChatGPT, Production-Oriented Approach (POA), Speaking Proficiency, English as a Foreign Language (EFL), College English.

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Citation: Juan, W., Binti Ismail, H. H., & Mansor, A. Z. (2025). Enhancing Chinese EFL Learners' Speaking Proficiency through AI-Integrated POA s. *Educational Sciences: Theory and Practice, 245*2), 44 - 57.
http://dx.doi.org/10.12738/jestp.2025.2.04

Introduction

English has established itself as the global lingua franca, making oral proficiency increasingly essential across academic, professional, and international domains (Astuty, 2023; Petrova, 2021; Shadiev & Wang, 2022). Within the Chinese EFL context, speaking remains one of the most demanding competencies, with learners frequently encountering difficulties related to fluency, accuracy, and pronunciation (Ellis, 2005; Munro & Derwing, 2011). Despite ongoing national reforms, the College English Course, which is mandatory for students not majoring in English, continues to rely predominantly on teacher-centred and text-based pedagogies. Consequently, learners have limited exposure to authentic spoken interaction (Li, Ahmod, & Kajal, 2023; Zhai, 2021). Persistent challenges in English speaking among Chinese students are evidenced by IELTS performance data, where speaking consistently receives the lowest scores among all tested skills in Mainland China (British Council, 2024). The situation is further exacerbated in underdeveloped regions such as Anhui Province, where insufficient infrastructure and scarce teaching resources present additional barriers to effective oral instruction (Statista, 2023; Zhang et al., 2022). The disparity between textbook-focused instruction and the demands of real-life communication underscores the urgent need to reform speaking pedagogy in Chinese educational settings.

Recent advancements in AI present promising avenues for enhancing education through personalised and interactive learning experiences (AbuSahyon et al., 2023; Chisom, Chika Chioma, & Blessing, 2024). In the realm of language acquisition, AI-powered platforms such as ChatGPT offer novel opportunities for developing speaking skills. ChatGPT enables learners to engage in dynamic, low-pressure dialogue while receiving instant, tailored feedback on aspects such as fluency, pronunciation, and accuracy (Celik, Yildiz, & Kara, 2025). Unlike traditional applications, ChatGPT provides a more authentic, adaptable, and context-sensitive speaking practice environment, which is vital for cultivating communicative competence (Asrifan & Dewi, 2024). Although there is a growing body of research on the general role of AI in language learning, few studies have investigated the application of ChatGPT for speaking instruction within clearly defined pedagogical frameworks particularly in the context of China's College English Course. To ensure that AI complements rather than substitutes meaningful learning, it must be integrated with robust instructional methodologies (Khlie & Benmamoun, 2024; Zong, 2024). The POA is one such framework, structured around three stages: motivating learners, facilitating knowledge acquisition, and assessing outcomes. This progression aligns well with ChatGPT's capabilities (Qiao & Zhao, 2023; Wen, 2018).

Despite the theoretical compatibility of POA and ChatGPT, limited empirical research has examined their combined impact on spoken English development in authentic classroom settings. Much of the existing literature on POA is concentrated on written production (Hao, 2024; Luo & Liang, 2022), and few investigations have explored AI-supported speaking instruction, especially in resource-constrained contexts like Anhui. While specific AI tools such as pronunciation correction and speech recognition are regarded as potentially beneficial (Amoah & Yeboah, 2021; Liu, Liu, & Yang, 2022), there remains insufficient evidence concerning their practical effectiveness when integrated into established teaching practices. To address these research gaps, the present study investigates the influence of incorporating ChatGPT within the POA framework on the speaking proficiency of Chinese college students. The study focuses on key oral skills fluency, accuracy, and pronunciation within the under-resourced setting of Anhui Province. The overarching aim is to demonstrate how AI technologies can be meaningfully deployed within structured instructional approaches to improve spoken English outcomes in similar educational contexts.

Literature Review

Challenges in Developing Speaking Proficiency in Chinese EFL Contexts

Speaking proficiency, encompassing fluency, accuracy, pronunciation, and intelligibility, constitutes a fundamental aspect of effective communication in a second language (Ellis, 2005; Munro & Derwing, 2011; Segalowitz, 2010). It enables learners to convey their thoughts clearly and to adapt their language appropriately across various communicative contexts (Nunan, 2003). Research suggests that fluency and accuracy should be developed in tandem to support meaningful interaction, while clear pronunciation enhances comprehensibility and minimises the risk of miscommunication (Ellis, 2005; Munro & Derwing, 2011). Engagement in fluency-oriented activities, particularly those that incorporate feedback, has been shown to significantly improve speaking performance (Fang et al., 2020). Within academic settings, oral competence plays a pivotal role in facilitating class participation, expressing viewpoints, and collaborating effectively with peers (Pakula, 2019; Shadiev & Wang,

2022). Furthermore, speaking proficiency reinforces the development of other academic language skills, including writing, reading, and listening (Pakula, 2019; Pylypyshyna & Palamarchuk, 2024). Nevertheless, speaking skills remain underdeveloped in many Chinese EFL classrooms due to persistent pedagogical shortcomings. The traditional instructional approach in China has primarily emphasised grammar instruction, vocabulary acquisition, and reading comprehension, while giving limited attention to speaking practice (Liu et al., 2022; Zhai, 2021). Contributing factors include large class sizes, examination-oriented curricula, and minimal exposure to authentic English input. As a result, students often find it difficult to apply textbook knowledge in spontaneous spoken interactions (Zhai, 2021). Moreover, a reliance on passive learning and a heightened fear of making mistakes tend to discourage learners from speaking, thereby increasing anxiety and reducing opportunities for meaningful oral practice (Halali et al., 2022; Wang et al., 2021).

Despite the growing availability of technological innovations such as AI-driven language tools and pronunciation training applications, their implementation in formal EFL instruction remains limited. At present, many universities restrict AI usage to writing support, such as automated essay evaluation, while comprehensive integration into speaking instruction is rare (Jiang et al., 2024; Liu et al., 2022). These tools are frequently used independently by students rather than being incorporated into structured teaching frameworks. To overcome these limitations, a pedagogical shift from traditional input-heavy instruction to more interactive, learner-centred approaches that emphasise output is essential. When appropriately implemented, AI technologies such as ChatGPT can facilitate improved fluency, bolster learner confidence, and deliver immediate, tailored feedback in oral English courses. However, the application of these technologies in EFL classrooms, particularly in under-resourced regions of China, remains largely unexplored.

ChatGPT and POA in Language Teaching: Potentials and Limitations

POA, introduced by Wen (2018), enhances language instruction by effectively bridging the gap between input and output. This approach follows a structured three-phase model: motivating learners, facilitating their knowledge acquisition, and evaluating their performance. POA promotes authentic language production, fosters learner autonomy, and prioritises purposeful communication, aligning with the principles of communicative language teaching (Wen, 2018; Zhang, 2020). Empirical evidence has shown that POA contributes to improvements in writing speed, grammatical accuracy, and student engagement (Li et al., 2023; Sun, Ismail, & Aziz, 2024). The initial phase prompts learners to engage with meaningful communicative tasks; the second provides the necessary linguistic resources; and the final stage offers constructive feedback to guide progress and encourage learner responsibility (Qiu, 2020; Wen, 2018). While POA has been widely applied to enhance reading and writing skills, its impact on speaking particularly with regard to fluency and pronunciation requires further investigation (Liu et al., 2022).

ChatGPT, an AI-driven language model, presents promising opportunities for practising spoken language in an interactive and low-pressure environment. It allows real-time conversation and delivers immediate feedback on grammar, fluency, and vocabulary usage (Brown et al., 2020; Prasetya & Syarif, 2023). Additional features, such as text-to-speech and automated error correction, help learners to improve pronunciation and adjust their speaking patterns (Jeon, Lee, & Choi, 2023). Nonetheless, several limitations of ChatGPT must be acknowledged. The lack of non-verbal cues restricts its capacity to simulate authentic face-to-face interaction, and it may not perform reliably with complex or context-dependent language. Overreliance on AI may also inhibit learners' ability to develop independent speaking skills and reduce their capacity for self-evaluation (Khlie & Benmamoun, 2024). Furthermore, AI-generated responses may occasionally contain biased or inappropriate content, potentially leading to misconceptions (Masoudi, 2024). Integrating ChatGPT with POA offers a way to mitigate these challenges. The structured nature of POA complements the adaptive and responsive features of AI tools. As noted by Sun et al. (2024), the sequential design of POA aligns effectively with AI-based interaction. Leong, Yunus and Ismail (2024) further argue that the pedagogical value of technological tools depends on careful instructional planning, rather than on the technology itself, and suggest that POA provides the necessary structure for purposeful AI integration. The combined use of POA and ChatGPT presents a comprehensive instructional model. While ChatGPT enables flexible, individualised speaking practice, POA offers a coherent learning trajectory with clear objectives and contextually meaningful language use.

Research Gap: Integrating ChatGPT into POA for Speaking Development

Although both POA and ChatGPT have demonstrated potential in enhancing English language education,

limited research has examined their combined use for developing speaking proficiency, particularly within EFL classrooms. Existing studies on POA predominantly centre on written and reading tasks facilitated through structured instructional activities (Luo & Liang, 2022; Zhao, Sulaiman, & Wahi, 2024), while the development of oral skills has received comparatively little attention. Similarly, the application of ChatGPT has largely been confined to written language support, such as grammatical correction and translation, with minimal empirical investigation into its role in facilitating real-time spoken interaction (Jiang et al., 2024; Liu et al., 2022). This issue is especially acute in regions such as Anhui Province, where college-level English instruction continues to rely on conventional, teacher-directed approaches. As a result, learners are afforded limited opportunities for authentic speaking practice (Li et al., 2023; Zhang et al., 2022). While national education policy increasingly advocates for the integration of AI technologies, the formal classroom use of ChatGPT particularly for speaking instruction remains rare. In parallel, most POA-based studies within Chinese higher education institutions continue to prioritise writing development, despite the untapped potential of AI in supporting oral communication. This intersection of AI and speaking instruction thus represents an important but underexplored area of pedagogical research.

Embedding ChatGPT within the POA framework presents a promising avenue for addressing this gap. POA's structured progression offers a suitable foundation for incorporating AI-mediated dialogue in a way that ensures oral production is purposeful, supported through scaffolding, and subject to systematic evaluation. Nevertheless, the existing body of literature provides limited practical guidance on how such an integration might be implemented or assessed in authentic classroom settings. Challenges such as disparities in teacher preparedness, infrastructural constraints, and varying levels of student digital literacy further complicate adoption. In response, the present study seeks to address this research gap by empirically examining the integration of ChatGPT within the POA framework to enhance the speaking proficiency of EFL learners. The investigation focuses specifically on fluency, accuracy, and pronunciation development in the context of the College English Course at a Chinese university. This study contributes not only to the practical extension of POA but also to a broader understanding of the pedagogical possibilities and constraints of ChatGPT in promoting oral language skills in resource-constrained educational environments.

Methodology

This section outlines the research questions, participants, instruments, data collection procedures, and analytical techniques employed in the study. It provides a comprehensive overview of how the research questions are investigated, details regarding the participants, and the methodologies utilised for data gathering and analysis.

Research Questions

1. How do Anhui undergraduates perceive the ease of use and usefulness of ChatGPT-integrated POA?
2. How does ChatGPT-integrated POA affect English speaking proficiency?

Participants

The study involved a total of 240 undergraduate students and 8 instructors. Participants were recruited from four universities, each contributing 60 students evenly split between two academic disciplines: 30 students from the arts (humanities) and 30 from the sciences. These students were organised into classes comprising 30 individuals, with each class assigned to one of two instructors per university, resulting in eight classes led by eight distinct teachers. Instructors were purposively selected based on comparable educational qualifications, prior experience with POA, and familiarity with technology integration in teaching. This sampling approach ensured a balanced representation across disciplines, institutions, and instructors, thereby enhancing the generalisability of the results. Ethical approval was granted by the respective universities, and informed consent was obtained from all participants.

Instruments

Questionnaire

The ChatGPT Integration Evaluation Tool (CIET) was developed to measure students' perceptions of ChatGPT's functionalities throughout the three stages of POA: Motivating, Enabling, and Assessing. The Motivating stage involves activities such as providing background information, clarifying tasks, and idea

generation; the Enabling stage includes grammar correction, vocabulary enhancement, pronunciation improvement, sentence structure revision, and interactive dialogue; while the Assessing stage encompasses monitoring learning progress, creating personalised tests, and delivering summative evaluations (see Table 1). This framework ensures that the evaluation thoroughly addresses how ChatGPT facilitates the development of students' speaking proficiency across the essential phases of POA.

Table 1: *Features of ChatGPT in POA Stages.*

POA Stage	Feature of ChatGPT
Motivating	Providing Background Information; Clarifying Tasks; Generating Ideas
Enabling	Grammar Correction; Vocabulary Correction; Pronunciation Correction; Vocabulary Extension; Sentence Structure Revision; Interactive Dialogues
Assessing	Tracking Learning Progress; Generating Personalized Tests; Giving Summative Assessment

The CIET is based on the Technology Acceptance Model (TAM), which emphasises PEOU and PU (Davis, 1989), and has been adapted to correspond with the POA framework (Qiu, 2020; Wen, 2018). The questionnaire items were revised from Supriyanto et al. (2024) to specifically assess how ChatGPT aids the development of speaking proficiency components, including fluency, accuracy, and pronunciation. For instance, an original item related to system feedback was modified to state, 'ChatGPT helps me track my speaking progress throughout the learning process.' Participants responded to each item using a five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5). The reliability and validity of CIET were evaluated in a pilot study, yielding a Cronbach's alpha exceeding 0.90 and factor loadings above 0.70, indicating strong internal consistency and construct validity. The questionnaire was administered biweekly throughout the six-week programme to monitor changes in students' perceptions over time.

Test

The Speaking Proficiency Test was designed to assess learners' oral English skills across three core dimensions: fluency, accuracy, and pronunciation, which are widely recognised as essential components in second language acquisition research (Ellis, 2005; Munro & Derwing, 2011). Given that traditional oral assessments often present challenges for beginner learners and may yield inconsistent outcomes (Isaacs, 2016), this study adopted a simplified format derived from the IELTS Speaking Test (IELTS, 2023). This IELTS-based format has proven to be both reliable and suitable for learners across diverse educational settings, including those with limited exposure to English (Khan et al., 2022). To encourage natural responses, the test incorporates familiar, low-anxiety tasks. It is divided into two sections: the first involves a 1–2-minute self-introduction, where participants share basic personal information such as their name, place of origin, and future aspirations. This task is used to assess the clarity, coherence, and fluency of speech using accessible vocabulary. The second section requires a 2–3-minute topic discussion in which participants describe a recently acquired skill, elaborating on its process and significance. This portion evaluates the ability to organise ideas and use language appropriate for explanation and narration.

Evaluation is carried out using a Speaking Proficiency Assessment Rubric adapted from the IELTS Speaking Band Descriptors. In this version, the original four-band categories are restructured into three assessment areas. Fluency refers to the ease and continuity of speech, accuracy pertains to the correct use of grammar and vocabulary, and pronunciation examines clarity, stress patterns, and intonation. Scores are assigned on a 9-band scale, with descriptors outlining levels of performance ranging from frequent hesitations and repeated errors to near-native fluency and linguistic precision. To ensure scoring reliability and validity, two certified IELTS instructors with specialised expertise in language assessment independently rated all speaking performances (Bakri, 2022). Their professional training and experience contributed to the consistency and rigour of the evaluation process.

Semi-Structured Interview

Semi-structured interviews were carried out with all eight participating instructors to explore their views on the integration of ChatGPT within the POA framework and its influence on speaking instruction. Each interview session lasted around 40 minutes. The interview guide was reviewed in advance to ensure clarity and content validity. A thematic analysis approach was employed to analyse the qualitative data, with NVivo 12 software used to facilitate coding and to identify recurring patterns and themes within the interview transcripts.

Data Collection Procedure

Data collection was conducted in two primary phases. During the intervention phase, ChatGPT was systematically integrated into the motivating, enabling, and assessing components of POA. Students engaged in a variety of activities facilitated by ChatGPT, including collaborative idea generation, role-playing, pronunciation guidance, grammar support, vocabulary suggestions, sentence refinement, and formative assessment tasks. These activities were embedded within the POA structure and delivered through ChatGPT. To capture students' perceptions of ChatGPT's usability and usefulness, the CIET questionnaire was administered on three occasions throughout the intervention. Upon completion of the intervention, students undertook a speaking proficiency test. In addition, instructors participated in interviews to reflect on the pedagogical impact of ChatGPT and to report any implementation challenges encountered during the process.

Data Analysis

Both quantitative and qualitative data were systematically analysed. Descriptive statistics were used to summarise students' utilisation of ChatGPT and their speaking proficiency scores, offering an overall view of performance improvements. To further explore the relationship between ChatGPT usage and speaking outcomes, regression analysis was conducted to examine the extent to which specific ChatGPT functions influenced speaking development across the POA stages (Pallant, 2020). Qualitative data from teacher interviews were analysed using the thematic analysis approach proposed by Braun and Clarke (2006), enabling the identification of key themes related to ChatGPT's perceived effectiveness, its impact on instructional quality, and its advantages and limitations. This mixed-methods design provided a comprehensive understanding of how ChatGPT-supported POA contributes to the enhancement of students' oral English proficiency.

Results

Results of Questionnaire

Results of Perceived Ease of Use

Students rated ChatGPT's PEOU at three separate points, aligned with the Motivating, Enabling, and Assessing stages of POA. Tables 2 to 4 display how these ratings evolved across stages and indicate which features were perceived as the most user-friendly. As shown in Table 2, during the Motivating stage of POA, the feature "Providing Background Information" received the highest PEOU ratings, beginning at 3.825, rising to 3.929, and slightly declining to 3.925, maintaining its position as the most user-friendly tool. "Clarifying Tasks" demonstrated a consistent upward trend, increasing from 3.671 to 3.763, and ranked second in overall ease of use. In contrast, "Generating Ideas" experienced a temporary decline in the second round of evaluation, dropping from 3.617 to 3.379, but later recovered to 3.479. Despite its initial lower intuitiveness, this feature placed third overall, suggesting that students' familiarity with it improved as the intervention progressed.

Table 2: *Perceived Ease of Use of Motivating Stage.*

POA Stage	ChatGPT Features	First Measurement Average	Second Measurement Average	Third Measurement Average	Overall Average	Overall Ranking
Motivating	Providing Background Information	3.825	3.929	3.925	3.893	1
	Clarifying Tasks	3.671	3.608	3.763	3.681	2
	Generating Ideas	3.617	3.379	3.479	3.492	3

Table 3 presents the PEOU ratings for the Enabling stage of POA, where "Grammar Correction," "Vocabulary Correction," and "Pronunciation Correction" emerged as the most user-friendly features, securing the top three overall ranks with mean scores of 4.174, 4.150, and 4.056, respectively. "Grammar Correction" reached its highest rating during the second assessment (4.325), followed by a slight decline, suggesting strong initial acceptance with minor adjustments over time. "Vocabulary Correction" showed a consistent upward trend, while "Pronunciation Correction" also improved steadily, indicating increased student comfort with these core support tools. Other features, including "Vocabulary Extension," "Sentence Structure Revision," and "Interactive

Dialogues," received moderate PEOU scores, ranging from 3.690 to 3.876. Although these tools were considered usable, they were comparatively less preferred than the primary correction functions.

Table 3: *Perceived Ease of Use of Enabling Stage.*

POA Stage	ChatGPT Features	First Measurement Average	Second Measurement Average	Third Measurement Average	Overall Average	Overall Ranking
Enabling	Grammar Correction	4.121	4.325	4.075	4.174	1
	Vocabulary Correction	3.967	4.129	4.354	4.150	2
	Pronunciation Correction	3.946	4.008	4.213	4.056	3
	Vocabulary Extension	3.908	3.888	3.833	3.876	4
	Sentence Structure Revision	3.892	3.817	3.800	3.836	5
	Interactive Dialogues	3.721	3.729	3.621	3.690	6

As indicated in Table 4, during the Assessing stage of POA, "Making Summative Assessment" was rated as the most user-friendly feature, with an overall mean score of 3.552 and a clear upward trajectory from 3.525 to 3.667. "Generating Personalised Tests" followed closely, with an average rating of 3.421. In contrast, "Tracking Learning Process" received the lowest average score of 3.311 and showed minimal improvement across the assessment points, suggesting persistent difficulties in navigating this feature. Across the intervention, students' PEOU ratings for ChatGPT features generally improved, particularly during the Enabling and Assessing stages, where increased familiarity with correction and evaluation tools enhanced user confidence. The final rankings identified "Providing Background Information" and "Grammar Correction" as the most accessible features, whereas "Tracking Learning Process" consistently posed usability challenges. These findings underscore the need for targeted support in helping students effectively utilise more complex assessment functions in order to maximise the pedagogical value of ChatGPT within the POA framework.

Table 4: *Perceived Ease of Use of Assessing Stage.*

POA Stage	ChatGPT Features	First Measurement Average	Second Measurement Average	Third Measurement Average	Overall Average	Overall Ranking
Assessing	Tracking Learning Process	3.300	3.263	3.371	3.311	3
	Making Summative Assessment	3.525	3.463	3.667	3.552	1
	Generating Personalized Tests	3.492	3.321	3.450	3.421	1

Results of Perceived Usefulness

PU of ChatGPT features across the three stages of the POA framework was measured three times during the study. The results, shown in Tables 5 to 7, indicate students' overall positive perceptions, with some fluctuations observed over time. As shown in Table 5, within the Motivating stage of POA, "Providing Background Information" achieved the highest overall PU score, with a mean of 3.872. This feature showed a marked increase from the first measurement (M = 3.529) to the second (M = 4.058), followed by a slight decline at the third (M = 4.029), maintaining its top position among the three evaluated features. "Clarifying Tasks" ranked second overall (M = 3.817), with a steady rise from 3.588 to 3.942 by the final assessment. "Generating Ideas" received the lowest rating in this stage (M = 3.507), although scores improved from 3.479 to 3.571 before stabilising. These results

indicate that students found ChatGPT particularly useful for fostering early engagement and supporting task comprehension during the Motivating phase of POA.

Table 5: *Perceived Usefulness of Motivating Stage.*

POA Stage	ChatGPT Features	First Measurement Average	Second Measurement Average	Third Measurement Average	Overall Average	Overall Ranking
Motivating	Providing Background information	3.529	4.058	4.029	3.872	1
	Clarifying tasks	3.588	3.921	3.942	3.817	2
	Generating ideas	3.479	3.571	3.471	3.507	3

As presented in Table 6, during the Enabling stage of POA, all features received consistently high PU ratings across the three assessment points. "Grammar Correction" was rated the most useful overall, with an average score of 4.228, followed closely by "Vocabulary Correction" at 4.250 and "Pronunciation Correction" at 4.045. Additional features, including "Vocabulary Extension," "Sentence Structure Revision," and "Interactive Dialogues," received moderately high mean scores ranging from 3.635 to 3.876. These results suggest that students perceived ChatGPT's tools designed to enhance language accuracy and fluency as particularly valuable during the Enabling phase of POA.

Table 6: *Perceived Usefulness of Enabling Stage.*

POA Stage	ChatGPT Features	First Measurement Average	Second Measurement Average	Third Measurement Average	Overall Average	Overall Ranking
Enabling	Grammar Correction	4.271	4.208	4.204	4.228	1
	Vocabulary Correction	4.104	4.317	4.329	4.250	2
	Pronunciation Correction	3.938	4.104	4.092	4.045	3
	Vocabulary Extension	3.838	3.842	3.879	3.853	4
	Sentence Structure Revision	3.757	3.742	3.713	3.737	5
	Interactive Dialogues	3.688	3.613	3.604	3.635	6

As shown in Table 7, features associated with the Assessing stage of POA received comparatively lower PU ratings than those in the Motivating and Enabling stages. "Generating Personalised Tests" ranked highest within this phase, with an average score of 3.385, followed closely by "Making Summative Assessment" at 3.382, and "Tracking Learning Process" at 3.214. Although these scores were lower overall, the data indicate that students still acknowledged the value of ChatGPT in offering personalised and summative assessment support during this stage.

Table 7: *Perceived Usefulness of Assessing Stage.*

POA Stage	ChatGPT Features	First Measurement Average	Second Measurement Average	Third Measurement Average	Overall Average	Overall Ranking
Assessing	Tracking Learning Process	3.008	3.317	3.317	3.214	3
	Making Summative Assessment	3.188	3.371	3.588	3.382	2
	Generating Personalized Tests	3.271	3.475	3.408	3.385	1

In general, students rated ChatGPT's features in the Enabling stage as the most useful, particularly grammar and vocabulary correction, followed by pronunciation assistance. Features in the Motivating stage were perceived as moderately useful, especially those related to providing background information and clarifying tasks. While the Assessing stage features received lower PU scores in comparison, they were still viewed positively, with personalised testing receiving the highest rating in that phase. Importantly, the majority of features demonstrated upward trends in PU across the three assessment points, reflecting a growing appreciation of ChatGPT's instructional value as the intervention progressed.

Results of Tests

Table 8 displays the descriptive statistics for the speaking proficiency test, which was assessed using the IELTS Speaking Band Descriptors. Each of the three evaluated components fluency, accuracy, and pronunciation was scored on a 9-point scale, yielding a maximum total score of 27. Participants achieved a mean score of 5.167 (SD = 0.167) for fluency, 5.597 (SD = 0.151) for accuracy, and 5.448 (SD = 0.139) for pronunciation. The overall mean speaking score was 16.212 (SD = 0.318). These results reflect a moderate level of speaking proficiency among participants, suggesting that while students demonstrated reasonable fluency, grammatical accuracy, and pronunciation clarity, there remains potential for further development across all three areas.

Table 8: *Descriptive Statistics of Speaking Test.*

		Mean	Std. Deviation
Dimensions	Fluency	5.167	0.167
	Accuracy	5.597	0.151
	Pronunciation	5.448	0.139
Summary	Final Score	16.212	0.318

Table 9 presents the results of the regression analysis assessing the extent to which ChatGPT integration predicts students' fluency outcomes. The model yielded an R^2 value of 0.081, indicating that approximately 8.1% of the variance in fluency scores was accounted for by the level of ChatGPT engagement. The standardised coefficient ($\beta = 0.284$), along with a statistically significant t-value ($t = 4.576$, $p < 0.001$), demonstrates a positive and meaningful relationship. This suggests that higher levels of interaction with ChatGPT features were significantly associated with improved speech fluency.

Table 9: *Regression Analysis of Fluency.*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.928	0.053		92.278	0.000
	Chatgpt Integration	0.064	0.014	0.284	4.576	0.000
	R	0.284				
	R Square	0.081				
	F	20.939***				

a. Dependent Variable: Fluency

Similarly, Table 10 reveals a stronger predictive relationship between ChatGPT integration and speaking accuracy. The model produced an R^2 value of 0.192, indicating that 19.2% of the variance in accuracy scores could be explained by the extent of ChatGPT usage. A standardised beta coefficient of 0.438, combined with a highly significant t-value ($t = 7.518$, $p < 0.001$), confirms that ChatGPT's corrective features had a substantial and statistically significant impact on students' grammatical and lexical accuracy during spoken production.

Table 10: *Regression Analysis of Accuracy.*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.263	0.045		116.367	0.000
	Chatgpt Integration	0.089	0.012	0.438	7.518	0.000
	R	0.438				
	R Square	0.192				
	F	56.521***				

a. Dependent Variable: Accuracy

Table 11 presents the regression analysis results for pronunciation, showing that ChatGPT integration accounted for 19.2% of the variance in pronunciation scores ($R^2 = 0.192$). The standardised beta coefficient of 0.376, accompanied by a statistically significant t-value ($t = 6.254$, $p < 0.001$), indicates a strong positive effect.

These findings suggest that engagement with ChatGPT significantly contributed to improvements in learners' pronunciation clarity and naturalness.

Table 11: *Regression Analysis of Pronunciation.*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.185	0.043		120.815	0.000
	Chatgpt Integration	0.070	0.011	0.376	6.254	0.000
	R	0.438				
	R Square	0.192				
	F	56.521***				

a. Dependent Variable: Pronunciation

Collectively, these findings indicate that incorporating ChatGPT into the POA framework significantly enhances all key dimensions of speaking proficiency. The most pronounced effects were observed in accuracy and pronunciation, likely attributable to ChatGPT's focused feedback on grammar, vocabulary, and phonological features. Although improvements in fluency were also evident, they were comparatively less substantial. Overall, the results underscore the potential of AI-driven language tools to support the development of oral communication skills in EFL learning environments.

Results of Semi-structured Interview

All eight instructors observed noticeable improvements in students' fluency and accuracy following regular use of ChatGPT. They highlighted the tool's effectiveness in promptly identifying grammatical and lexical errors, enabling learners to make timely corrections. According to the teachers, students began incorporating more complex sentence structures and a broader range of vocabulary during speaking activities. Although some gains in pronunciation were acknowledged, instructors felt that ChatGPT's support in this area was limited and recommended the inclusion of targeted pronunciation exercises to enhance this aspect further. In addition, teachers reported that ChatGPT contributed to reducing students' speaking anxiety by offering a low-pressure, non-judgemental practice environment. This shift encouraged learners to speak more freely, with less fear of making mistakes, ultimately boosting their confidence. The tool's capacity to deliver personalised feedback also promoted learner autonomy, further supporting the development of speaking proficiency.

Discussion and Conclusion

Overview of Findings

The study yielded two key findings. First, students reported favourable perceptions regarding both the ease of use and usefulness of ChatGPT when integrated into the POA framework, with specific features proving more effective at particular instructional stages. Second, the integration of ChatGPT within POA-based instruction led to significant improvements in speaking proficiency, particularly in fluency and accuracy. However, enhancements in pronunciation were comparatively less pronounced.

Perceptions of ChatGPT-Integrated POA

Grounded in TAM (Davis, 1989), the findings suggest that students rapidly adopted ChatGPT due to its perceived ease of use and usefulness two core determinants of educational technology acceptance (Venkatesh & Davis, 2000). The tool's effectiveness varied across the different stages of POA (Motivating, Enabling, Assessing), influencing student engagement and outcomes in distinct ways. Notably, features such as idea generation and task clarification proved particularly beneficial during the Motivating stage, reinforcing previous research that highlights the motivational value of purposeful tasks (Li et al., 2023; Wen, 2018). Insights from teacher and student interviews further revealed that ChatGPT helped reduce speaking-related anxiety by providing a non-threatening environment for oral practice, aligning with prior findings on AI's role in fostering speaking confidence (Asrifan & Dewi, 2024; Huang, Hew, & Fryer, 2021). Moreover, its ability to deliver immediate feedback and maintain interactive conversations empowered students to take greater ownership of their learning supporting research that underscores

the value of AI in promoting self-correction and personalised learning pathways (Prasetya & Syarif, 2023). In sum, ChatGPT functioned as a highly effective pedagogical tool when integrated with POA, offering timely support while sustaining student engagement. This study contributes to a deeper understanding of how AI can enhance language learning at different instructional stages, providing more nuanced evidence of its role in EFL education.

Impact of ChatGPT-Integrated POA on Speaking Proficiency

This study demonstrates marked improvement across three core dimensions of speaking proficiency: fluency, accuracy, and pronunciation. These components are widely recognised in language learning literature as essential to effective communication (Ellis, 2005; Munro & Derwing, 2011). The most substantial gains were observed in fluency and accuracy, largely attributable to ChatGPT's personalised practice features and immediate corrective feedback, which encouraged sustained speech production while addressing errors in real time. These outcomes are consistent with previous findings indicating that task-focused, AI-supported practice enhances oral output and reduces linguistic inaccuracies (Zou et al., 2023). In contrast, gains in pronunciation were more modest. This may be due to current limitations in AI's capacity to address nuanced phonetic elements, such as intonation and stress patterns (Puri & Baskara, 2023). Existing research also suggests that effective pronunciation development often requires human input, particularly to model natural rhythm and suprasegmental features of speech that AI tools are not yet equipped to handle (Khlie & Benmamoun, 2024; Munro & Derwing, 2011). Overall, integrating ChatGPT within the POA framework provided learners with targeted, goal-oriented speaking practice supported by individualised feedback. These findings reinforce Wen (2018) argument that combining technology with task-based pedagogy enhances learner engagement and support. While the results highlight the strong potential of AI tools in improving fluency and accuracy, they also suggest that supplementary teacher-led pronunciation instruction remains necessary for comprehensive oral development.

Implications for EFL Teaching

This study underscores the pedagogical value of integrating ChatGPT within the POA framework to enhance English language instruction. Teachers are encouraged to strategically utilise ChatGPT's features across the POA stages namely, motivating learners, facilitating practice, and assessing progress to sustain engagement and strengthen language development. For instance, AI-driven tools can assist with idea generation and task clarification during the Motivating stage, thereby enhancing learner motivation. During the Enabling phase, ChatGPT can provide immediate feedback on grammar and pronunciation, supporting improved linguistic accuracy (Behforouz & Ghaithi, 2024; Huang, 2024). Moreover, ChatGPT offers a low-pressure, interactive environment that helps alleviate learners' anxiety about speaking, promoting more frequent and confident oral participation an essential factor in the development of speaking skills (Celik et al., 2025; Zhang, Meng, & Ma, 2024).

In this context, educators are advised to employ AI tools to foster learner autonomy and reduce affective barriers by cultivating student-centred classroom environments. Although the intervention led to substantial progress in fluency and accuracy, the relatively limited improvement in pronunciation suggests a continued need for complementary instructional approaches. Techniques such as explicit pronunciation drills, peer review, and phonetic training remain essential to address the limitations of AI in this domain (Aryanti & Santosa, 2024; Kaiser, 2024). Equally important is the design of pedagogical tasks that align with AI capabilities. Previous studies indicate that integrating task-based instruction with AI facilitates personalised learning experiences while maintaining instructional coherence and purpose (Aladini et al., 2025; Fountoulakis, 2025). Effective use of technology thus requires intentional planning to ensure it reinforces, rather than detracts from, instructional goals. In summary, combining ChatGPT with POA presents a practical and effective strategy for enhancing speaking proficiency, particularly in resource-constrained educational contexts. Teachers should develop AI-supported tasks that are responsive to learners' communicative needs while fostering a supportive and learner-friendly environment.

Limitations and Future Direction

This study was limited to four universities within Anhui Province, which may restrict the generalisability of the findings to broader EFL contexts. The relatively small sample of teacher interviews further limits the depth of insight into ChatGPT's classroom integration, indicating the need for expanded qualitative inquiry. Moreover, inherent limitations of ChatGPT—such as its inability to interpret non-verbal cues or fully grasp contextual subtleties—may impede the development of certain communicative competencies. Future research should

therefore involve larger, more diverse participant samples and explore ChatGPT's application across varied cultural and educational settings. Further investigation is also required to assess AI's potential in enhancing pronunciation and pragmatic aspects of spoken language. Longitudinal studies would be beneficial in examining the sustainability of learning gains and the risk of learner overreliance on AI tools. Additionally, integrating ChatGPT with complementary instructional strategies, such as video-based tasks or role-playing, may offer more comprehensive support for oral language development.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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