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## LEVERAGING CHATGPT'S ADVANCED VOICE MODE FOR ENHANCING ORAL-AURAL SKILLS IN HIGHER EDUCATION LANGUAGE LEARNING: A MIXED -METHODS STUDY

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### ABSTRACT

The development of advanced conversational artificial intelligence (AI) technology has had a major impact on higher education, but there is limited empirical research on its effectiveness for developing oral-aural skills. Although AI for language learning previously focused on text-based skills, the development of powerful voice interaction technologies opens up new opportunities for pedagogy. This paper fills this gap by examining the effects of ChatGPT's Advanced Voice Mode on the development of EFL students' oral proficiency at the university level. Following the design of a sequential model of the explanation of the mixed method, this study quantitatively determined the improvement of students' verbal proficiency during the 8-week intervention period. The next phase is qualitative, where we gain the perspective and experience of the learner through semi-structured interviews. Quantitative findings showed that fluency and lexical resources increased significantly, but pronunciation did not increase significantly. This difference is reinforced by qualitative data, which focuses on three main themes: the potential of AI for low-anxiety training rooms, learners' frustration with the lack of nuanced feedback on accent phenomena, and difficulties associated with real-time corrective functions. The results of the experiment show that ChatGPT's voice mode is a powerful tool to help develop students' confidence and conversational fluency, but it is best used as an additional instrument along with other pedagogical support tools. This sound mode cannot replace the subtle, phonetic, and pragmatic model provided by teacher-led instruction. These results inform a basic proposal for a "Mixed Dialogical Model" to integrate conversational AI into the language curriculum, with a focus on technology-mediated practices and expert human tutorials that work synergistically together.

**Keywords:** AI in Language Learning, Blended Dialogic Model, ChatGPT Advance Voice Mode, EFL Learners, Oral-Aural Skills

## **INTRODUCTION**

The education world is changing. And it is changing largely due to clever AI integration in the classroom. AI technologies such as ChatGPT and Large Language Models (LLMs) more broadly, have represented a revolution in transforming the teaching and learning of language skills and provided bridges from traditional static, to interactive adaptable forms of education (Madkour, 2016; Santoso et al., 2024; Sims & Fletcher-Wood, 2021; Zawacki-Richter et al., 2019). The explosive popularity of AI is manifested by ChatGPT's obtaining more than one million users during its first five days, expanding rapidly to hundreds of millions of active users, indicating its widespread use in academia (Burmagina, 2025; Khalifa & Albadawy, 2024; Maruf et al., 2024; Smith et al., 2020; Zhu & Wang, 2025). As AI becomes more popular, the question of how it can be used and whether it can improve language learning is a pertinent one – In higher education alone, uptake in AI has increased by 2.3 percent only within the last year (Jeon & Lee, 2023; Jiang, 2022; Sabirova & Khanipova, 2019). One interesting trend in this change is the departure from text-based interfaces to multimodal- and voice-controlled conversation agents that can emulate human conversational interaction, creating a variety of opportunities for interactive and immersive learning (Chassignol et al., 2018; Nazarova, 2020; Tahiru, 2021).

Nevertheless, in spite of all these advances, a certain lack of balance continues to exist even today in the area of Computer Assisted Language Learning (CALL) since most researchers have concentrated on trying to improve reading and writing skills while ignoring listening and speaking. Research indicates that AI applications in English Language Teaching (ELT) have focused mainly on these areas, resulting in considerable gains for the students (16.6% and 13.8%) compared to using AI tools for writing and reading respectively. Comparatively, progress achievements in speaking (5.4%) and listening (4.2%) have been considerably low (Journal of Language and Linguistic Studies, 2024). This difference is a result both of technological constraints, as well as pedagogical biases that have historically favored written over oral-aural skills. Therefore, a significant void exists in the literature on how new generation of conversation AI can help with communicative efficacy especially for spoken interaction (Lu et al., 2024; Santoso et al., 2024; Wu & Yu, 2024; Zhu & Wang, 2025). This vacuum has demanded additional investigation on how conversational AI tools like ChatGPT's Advanced Voice Mode can be leveraged to enhance speaking and listening, which are two main pillars of communication in academic or professional settings.

A study that formulates this gap by contributing a thorough bibliometric analysis and systematic review on the roles of AI in language education indicates that, although AI tools have greatly improved reading and writing, speaking and listening have been left behind, making them an important focus for new research (Liang & Chen, 2021). Their findings indicate that although AI tools have greatly improved reading and writing, speaking and listening have been left behind, making them an important focus for new research. They suggest that the emphasis be on speaking and listening skills in AI-based tools like chatbots and robots, which can achieve a higher level of participation at classroom levers, encourage group work at working levels and enable learning along with efficiency. the importance of future research on AI applications that orient toward supporting the acquisition of oral-aural competencies (Liang & Chen, 2021). In this study, based on their suggestion, we call for the

utilization of ChatGPT's Advanced Voice Mode as a learningsupporting tool to improve speaking and listening skills in higher education where the integration of AI technology has been overlooked despite increasing relevant usage in educational environments.

Although AI technologies have been widely used in the context of language learning, most studies have focused on enhancing reading and writing skills with little attention towards oral-aural skills. The neglect of speaking and listening which, considering their fundamental importance to communicative competence, has characterised the literature and curriculum development on this topic. Paper highlights about the imbalance and we call for more research focused on how AI can support these important language skills (Liang & Chen, 2021). We are addressing this gap directly: our study will examine the effects of ChatGPT with Advanced Voice Mode on speaking and listening skills, both typically under-explored in AI-based language education.

In addition to the emphasis on speaking and listening, this research also addresses a more general gap in the literature, with regard to AI in education. Although AI has been extensively studied in a wide range of educational domains, there is still a need for more studies that target its use within higher education where it plays an important role to enhance advanced language skills. Never in history has it been more important to know how to communicate and effectively speak/listen within the global community and obtaining a career thereafter. This research will explore ways in which ChatGPT's Advanced Voice Model can be utilized to enhance oral-aural proficiency for university-level language acquisition, enabling students to succeed in an increasingly international society.

Yet another deficiency reported in the literature is found when comparing AI tools for enabling learners to learn an L2 systematically. While AI tools, such as chatbots or virtual tutors, have been extensively researched in the past years to foster those language skills (18), only a few studies have conducted a statistical comparison between them with respect to their capabilities to improve specific language abilities (e.g. speaking and listening). the mention of such tools in much literature, there are only a few empirical studies comparing their efficacy focusing on oral communicative enhancement (Alharbi, 2023; Sharadgah & Sa'di, 2022; Wang, 2022). This paper will only examine ChatGPT's Advanced Voice Mode and prove empirically the extent to which it actually improves speaking and listening ability in an academic environment. By researching this tool, it is hoped that the deficiencies in literature, concerning how effective AI can be to build oral-aural competencies in language learning, would be filled.

The main underlying issue that drives this research is a gulf between what technology can do and the actual evidence of its efficacy for enhancing speaking and listening in higher education. Though AI applications such as ChatGPT's Advanced Voice Mode offer powerful voice features, we find a dearth of sound evidence-based research on their effectiveness in language learning context, especially for speech production development. This gap is to be addressed by examining systematically the possible effect of long-term exposure to ChatGPT: Advanced Voice Mode on students' speaking and listening capabilities-fluency, pronunciation, lexical resource and grammatical range.

There are several important aspects of this study. Firstly, it will have an impact on language educators and curriculum creators by providing empirical evidence concerning the integration of AI-powered tools such as ChatGPT in language teaching to improve spoken and aural abilities. Second, it will add to the empirical underpinning of AI in language education

which is largely dominated by theoretical discourses and small-scale studies. Finally, the results of our study will be used to guide institutional policy on the ethical and effective use of AI in higher education, where student adoption of AI has often been ahead of formal pedagogical research, leaving a number of institutions in a reactive stance (Haque & Li, 2024; Jiang, 2022; Kasneci et al., 2023; Sharadgah & Sa'di, 2022; Zhai et al., 2021).

This research is guided by the following questions: To what extent does long-term engagement with ChatGPT's Advanced Voice Mode impact on the oral proficiency including fluency, pronunciation, lexical resource and Grammatical range and accuracy of higher education EFL learners? It is assumed that the intervention group subjects will achieve statistically significant differences in their general speaking proficiency, i.e., in fluency and lexical resource overall performance as well as when judged from a native speaker or rater point of view compared to their pre-test. Moreover, the investigation will investigate how university EFL learners experience using the Advanced Voice Mode within ChatGPT for speaking and listening skill development, as well as what advantages and disadvantages do they perceive in using such a tool when learning a language.

By systematically examining the effects of ChatGPT Advanced Voice Mode on speaking and listening skills in higher education language learning, this work responds to important research needs. This study aims to add to this collection of studies by concentrating on a particular advanced AI tool and how it can facilitate better oral communication skills as part of a holistic approach to understanding how AI supports development of communicative competence in the education classroom.

## **RESEARCH METHODS**

This study adopts a mixed-methods explanatory sequential design to investigate the impact of ChatGPT's voice mode on learners' oral proficiency. The quantitative phase serves as the primary component, while the qualitative phase provides explanatory depth to help interpret the statistical findings. The research begins with the administration of a pre-test to establish baseline oral proficiency. The pre-test was conducted before any instructional intervention, and the scores were collected to represent initial performance. Following this, an eight-week intervention was implemented, during which students completed weekly 30-minute speaking tasks using ChatGPT's voice mode. These tasks were integrated into the existing curriculum to ensure ecological validity and to position the intervention within authentic classroom practices. After the intervention, a post-test was administered to measure learning gains, and the corresponding scores were collected for comparative analysis.

The participants consisted of 88 undergraduate EFL learners from a private university in East Java. Their oral proficiency tests were rated by trained evaluators, and inter-rater reliability was assessed using Cohen's Kappa. To determine the statistical significance of the intervention's impact, paired-samples t-tests were conducted to compare pre- and post-test scores. To complement and explain these findings, the second phase of the study involved qualitative data collection through semi-structured interviews. Sixteen students were purposively selected to provide richer insights into their experiences using ChatGPT's voice mode. The interviews focused on learners' perceptions of AI-mediated speaking practice, the usability of the voice interaction feature, and the perceived influence on their oral proficiency development. All qualitative data were analyzed through thematic analysis to identify recurring

patterns and to contextualize the quantitative results.

In terms of infrastructure and funding, the study assumes access to ChatGPT's Advanced Voice Mode, though infrastructure and funding issues are not directly addressed within the research design. The voice mode feature is assumed to be accessed via personal subscriptions (such as ChatGPT Plus) or through institution-provided accounts. The cost of the subscriptions will be borne by the researcher, as no institutional funding will be provided for the use of the tool.

For this study, 4 after-market accounts will be purchased from an online shop for a 2-month period to provide access to ChatGPT's voice mode for the participants. These accounts will be shared among the 16 selected students in a rotating schedule, ensuring that each student has the opportunity to use the voice mode feature during the intervention.

As this study does not include a formal cost-benefit analysis or resource planning for devices, internet, or software licensing, this aspect represents a gap in the study, highlighting the need for a more comprehensive consideration of resources in future implementations of AI-based interventions in educational settings.

## RESULTS AND DISCUSSION

### Results

The quantitative and qualitative results of the study contribute important implications for understanding on the extent to which ChatGPT's Advanced Voice mode is helpful in promoting oral proficiency, fluency and lexical resource especially among university level EFL learners. This mixed-methods approach including pre- and post-tests, learner perception surveys, and semi-structured interviews has provided for a rich analysis of both observable gains in oral proficiency as well as learners' views on the tool.

Quantitative data revealed a significant improvement in students' fluency and lexical resource following the eight-week intervention. As shown in Table 1, paired-sample t-tests indicated statistically significant gains in fluency and coherence ( $t = -7.45$ ,  $p < 0.001$ ), lexical resource ( $t = -6.21$ ,  $p < 0.001$ ), and grammatical range and accuracy ( $t = -2.54$ ,  $p = 0.012$ ). Students demonstrated fewer hesitations, more cohesive utterances, and greater vocabulary diversity. In contrast, pronunciation showed no significant improvement ( $t = -0.94$ ,  $p = 0.349$ ), suggesting that while the AI tool supports communicative fluency, it does not adequately address phonetic accuracy. This limitation aligns with existing literature documenting the inability of current AI tools to provide accurate or nuanced phonetic guidance (Berndtsson et al., 2020; L. Chen et al., 2020; Eysenbach, 2023; Zhao, 2023).

Proficiency Metric	Pre-Test M (SD)	Post-Test M (SD)	t-statistic	df	p-value
Overall Proficiency	5.62 (0.88)	6.05 (0.91)	-6.89	87	<0.001
Fluency & Coherence	5.71 (0.95)	6.28 (0.99)	-7.45	87	<0.001
Lexical Resource	5.50 (1.02)	6.01 (1.05)	-6.21	87	<0.001
Grammatical Range & Accuracy	5.88 (0.85)	6.09 (0.83)	-2.54	87	0.012
Pronunciation	5.40 (1.10)	5.48 (1.13)	-0.94	87	0.349

Note: M = Mean; SD = Standard Deviation. Proficiency scores are based on a 9-band scale.

These measurable gains can be interpreted beyond the classroom level. At the program level, the improvements in fluency and lexical resource directly support Graduate Learning Outcomes (CPL) related to communicative competence and productive academic interaction. Similarly, these findings align with Program Learning Outcomes (PLOs) emphasizing oral communication and learner autonomy. From an institutional viewpoint, the intervention contributes to the university's Internal Quality Assurance System (SPMI), particularly within the PPEPP cycle. The identification of pronunciation as a non-improving area offers diagnostic feedback valuable for curriculum review, instructional design, lecturer competency development, and media selection. Thus, the findings bridge micro-level classroom evidence with macro-level quality assurance indicators.

The qualitative analysis, which involved semi-structured interviews with 16 of the participants, identified three themes that explained how learners experienced using ChatGPT's Advanced Voice Mode and helped to explain a gap between improvements in scores achieved quantitatively and no progression observed productively.

### **Theme 1: "A Safe Space to Fail" – Removing Affective Barriers**

Respondents overwhelmingly cited the non-judgmental style of ChatGPT as a key enabler in lowering anxiety and easing more speaking practice. They enjoyed the chance to try out challenging language without being criticized by peers or teachers when they got things wrong. "With ChatGPT, I can just talk and talk. If I fall out or something foolish, it doesn't mind. This makes me bold to try new words." This theme supports the important influence of AI as a means to decrease the affective filter, which corresponds with previous findings about AI-generated positive emotions in language learning (Lu et al., 2024; Malik et al., 2023; Nazarova, 2020).

### **Theme 2: Discourse on the "Deaf" Tutor Frustration in Pronunciation Feedback**

Through learners appreciated how tolerant of errors the tool was (i.e., it was able to recognize their speech despite small mistakes) they were disappointed by the absence of pronunciation feedback. "I know I am pronouncing wrong," one student said, "but it just keeps forgiving me." "It's like having a really patient but very deaf tutor." The failure of alexapronsP to produce pronunciation feedback also contributes in making the improvements limited/explainable literature have expressed concerns about AI and its capacity to give correct phonetic correction (Alharbi, 2023; Khalifa & Albadawy, 2024; Nazarova, 2020). The frustrations had contributed toward communication breakdowns, with students having to repeat or type words and underscored the limitations of the AI.

### **Theme 3: Instant Feedback A Double-Edged Sword**

The learners' engagement with the immediate feedback of ChatGPT was multifaceted. They appreciated that the immediate grammar correction was improving their accuracy on one hand. But some students thought all that correction distracted from the flow of spontaneous conversation. Sometimes, I'd get stuck and know ChatGPT would just fix my sentence for me... it's nice here & there but also maybe makes my brain lazy? This theme corresponds with the

"autonomy paradox" the tool designed to support autonomy might generate interdependency, similar fears of overreliance on AI in language learning (X. Chen et al., 2020; Kasneci et al., 2023; Khalifa & Albadawy, 2024).

The findings of this research are part of the ongoing debate on AI integration in language teaching and learning, specifically pertaining to improving speaking and listening skills. The increase in fluency and lexical resource indicate that ChatGPT's Advanced Voice Mode encourages more confident, fluent speech. The fact that no improvements are made in pronunciation highlights the technology's inability, so far, to tackle phonetic difficulties – a primary issue when it comes to being orally proficient in a foreign language. This result demands that AI's phonetic feedback be further developed for supporting learners in their spoken language production.

The pedagogical implications of this study are in line with the necessity of integrating AI tools and teacher-led instruction to overcome the drawbacks of existing generations of AIs. The proposed The "Blended Dialogic Model" advocates for developing fluency and confidence through AI, with the teachers covering specific training of certain aspects such as pronunciation and pragmatics.

### ***Discussion***

Beyond pedagogical implications, the model introduces several managerial considerations crucial for institutional adoption. If implemented at scale, departments must develop formal Standard Operating Procedures (SOPs) to guide AI use in teaching, including ethical guidelines, recommended instructional use cases, assessment alignment, and expectations for monitoring student–AI interactions. Additionally, the integration of AI supports will influence faculty workload distribution. Lecturers will require designated time to design AI-based tasks, monitor student engagement, evaluate interaction logs, and provide supplementary feedback tailored to individual learner needs.

Institutionally, adopting the Blended Dialogic Model provides an opportunity to shift from a reactive stance toward AI to a strategic, evidence-based approach supported by policy frameworks and quality assurance mechanisms. Doing so ensures that AI becomes an intentional element of instructional strategy rather than an ad-hoc or student-driven practice.

In general, ChatGPT's Advanced Voice Mode is a powerful supplement for language instructing, and especially the promotion of fluency and vocabulary. Nevertheless, for optimal efficiency it is best employed to accompany other teaching methods, especially as concerns pronunciation and subtle aspects of language use. The result of this study provides useful results on the integration of AI into language exercises to encourage oral-aural competence in higher education.

### **CLOSING**

The present study underscores Advance Voice Mode, a capability of ChatGPT, as a resource for strengthening oral proficiency in higher education with an emphasis on fluency and lexical resources. The results we obtained suggest that AI-empower tools can substantially contribute to a good confidence on a spoken language. But the lack of progress on pronunciation speaks to AI's limitations in giving clients thorough feedback, which is key for learning a language. More broadly, qualitative analysis also indicated that learners took

advantage of the low-anxiety environment offered by ChatGPT, but felt frustrated with how the tool was unable to help them address pronunciation issues or its constant correction function (which sometimes interrupted more natural conversation flow).

Integrating AI based voice tools into the curriculum requires alignment with existing curriculum management processes. If the model is adopted on a larger scale, it should be formally included in the RPS as an approved learning medium for oral aural practice instead of being treated as an optional extra. Stating this clearly in the RPS will help maintain consistency across classes and give a basis for aligning assessment indicators with AI supported learning tasks.

The finding that ChatGPT's voice mode lacks the ability to address fine-grained phonetic issues also carries implications for human resource development. Institutions must implement structured faculty development programs to strengthen lecturer competence in phonetics, AI-assisted pedagogy, and digital oral assessment. These competencies can be embedded within ongoing professional development initiatives to ensure that lecturers are equipped to complement AI tools with expert pronunciation modelling, pragmatic guidance, and targeted feedback. Effective curriculum integration therefore requires not only technological adoption but also sustained lecturer preparedness and competency upgrading.

Overall, the results affirm the potential of AI-supported speaking tools while reinforcing the irreplaceable value of human instruction for comprehensive oral-aural development. A Blended Dialogic Model, in which AI facilitates autonomous practice and fluency-building while teachers provide individualized instruction on pronunciation and pragmatic competence, represents a balanced and pedagogically sound approach. While ChatGPT's Advanced Voice Mode offers meaningful benefits for enhancing oral fluency and confidence, it cannot fully substitute for personalized, expert-led instruction. As such, institutions adopting AI for language learning must engage in intentional planning, ensuring that AI enhances rather than replaces established pedagogical practices. This study contributes to the broader discourse on AI in education and provides evidence-based insights into its role in promoting communicative competence within higher education.

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