# PERSONALIZED LISTENING PRACTICE: INTEGRATING AI (CHAT GPT) AND (VOXBOX) NATIVE SPEAKER INPUT IN LANGUAGE LEARNING

**Fatma Yuniarti [1], Fitri Wulandari [2], Dian Rakhmawati[3]**
**[1,2,3]English Education Study Program of UMPRI**
**Universitas Muhammadiyah Pringsewu Lampung**
**Jl. KH. Ahmad Dahlan No.112, Pringsewu, Lampung,**
**Phone: (0729) 21359 Indonesia.**
**e-mail: contact@stkipmpringsewu-lpg.ac.id**

**Abstract** *: This investigation examines the incorporation of Artificial Intelligence (AI) technologies, notably ChatGPT for the generation of content and VoxBox AI for the provision of input from native speakers, with the objective of improving listening comprehension among first-semester students of English education at Universitas Muhammadiyah Pringsewu. Utilizing a mixed-methods framework, the research concentrates on resolving challenges associated with listening, such as the comprehension of natural speech patterns and colloquial expressions. The study engages 25 participants who were selected through purposive sampling, with data gathered through pre- and post-assessments, usage analytics, surveys, and interviews. The results indicate a 23.5% enhancement in listening comprehension scores, in addition to heightened levels of student engagement and self-efficacy. Qualitative analysis underscores the effectiveness of tailored feedback and authentic linguistic input in facilitating language acquisition. This research emphasizes the transformative potential of AI-enhanced pedagogical approaches in addressing listening difficulties, presenting practical implications for the integration of sophisticated educational technologies within English language instruction. Future investigations are recommended to examine wider applications and to refine AI-driven methodologies in order to optimize learning outcomes.*

**Keywords***: AI-enhanced learning, ESL listening comprehension, personalized education, native speaker input, technology integration.*

## INTRODUCTION

In today's globalized era, English listening skills are fundamental for academic and professional success. However, traditional approaches to teaching listening often fail to address the diverse needs of learners, particularly first-semester of English education at Muhammadiyah university of Pringsewu. Trisno, Emzir, and Mayuni (2019) highlighted that university students commonly face challenges in listening comprehension due to issues such as unfamiliar vocabulary, rapid speech rates, and lack of contextual understanding. The

advancements in technology, particularly those pertaining to Artificial Intelligence (AI), afford a unique opportunity to mitigate this disparity by providing bespoke solutions for individualized educational experiences. Purpose of the Study: The primary objective of this investigation is to elucidate the challenges that learners encounter in enhancing their listening competencies, which are indispensable for foreign language acquisition alongside listening, speaking, reading, and writing. This underscores the critical role of listening comprehension in the process of language learning. Target Group: The research specifically examines students enrolled in the English Department at the State University of Muhammadiyah Pringsewu Lampung, Indonesia. This particular cohort is significant as it offers contextual insights into the specific challenges encountered within a defined academic environment.

## REVIEW OF RELATED LITERATURE

### The Theories of Voxbox

VoxBox serves as a digital platform that enables users to articulate their perspectives and evaluations regarding a diverse array of products and services. Golsteijn et al. (2015) was constitutes a form of online review and rating mechanism that assists enterprises in refining their offerings. Within the realm of auditory assessment, VoxBox may be utilized to solicit feedback pertaining to audio products or services. Audio feedback denotes the process of conveying critiques regarding audio products or services, encompassing aspects such as sound quality, tonal variation, and pitch modulation.

VoxBox exemplifies a platform that streamlines the provision of audio feedback. Audio feedback encompasses the recording and dissemination of formative evaluations to learners. Ideally, the design and execution of audio feedback should be constructive, facilitating students in advancing their developing understanding into their continuous learning and professional practices. This notion is pertinent to the inquiry as it accentuates the significance of listening in the assessment of audio quality. Listening skills pertain to the capacity to accurately receive, interpret, and respond to both verbal and non-verbal communications.

Proficient listening is vital in numerous facets of existence, including interpersonal and professional relationships. In the context of VoxBox, listening skills are imperative for delivering constructive evaluations.

The transformative potential of AI in the realm of language acquisition has been underscored by various studies. The Canadian Journal of Language and Literature Studies (2023) emphasized the role of AI technologies in augmenting language instruction, evidencing improvements in vocabulary acquisition and listening comprehension through adaptive and interactive platforms. Furthermore, Javaid et al. (2023) highlighted the opportunities offered by tools like ChatGPT in ameliorating educational systems, including the provision of personalized content and feedback. However, while these studies elucidate the advantages of AI in language education, the synergistic role of integrating AI with native speaker input remains inadequately examined, particularly in the context of enhancing listening skills among novice learners.

The originality of this research is encapsulated in its innovative synthesis of AI-driven personalization with curated native speaker contributions, thereby establishing a comprehensive framework for listening practice. In contrast to antecedent studies that concentrated exclusively on either AI-centric personalization or exposure to native speakers, this research amalgamates these components to provide a more authentic and efficacious educational experience. This methodology harnesses ChatGPT for the dynamic generation of content and VoxBox AI for the recognition of speech and feedback on pronunciation, specifically tailored to the requirements of first-semester students within a tertiary educational framework.

## METHODOLOGY OF STUDY

This investigation employs a sequential explanatory mixed-methods framework, grounded in a mixed-methods research design, to scrutinize the amalgamation of Artificial Intelligence (AI) and native speaker input for personalized listening practice. The mixed-methods approach integrates the advantages of both quantitative and qualitative data collection and analysis, thereby ensuring a thorough comprehension of

the ramifications on students' listening comprehension, engagement, and motivation. This design facilitates a systematic assessment of how AI-driven platforms and native speaker input mitigate the challenges encountered by first-semester English department students in the enhancement of listening skills. By harnessing both statistical analysis and comprehensive interviews, researchers are able to reveal intricate insights into student experiences, ultimately guiding best practices for the incorporation of technology in language education (Zhou, 2020; Jia et al., 2022). This comprehensive perspective not only underscores the efficacy of diverse instructional methodologies but also accentuates the necessity of customizing learning experiences to accommodate varied student needs and preferences. Such a strategy cultivates a more inclusive educational milieu, wherein technology functions as a conduit to advance communication skills and cultural awareness among students from heterogeneous backgrounds.

The sampling strategy employed is purposive sampling, specifically targeting first-semester English department students at Universitas Muhammadiyah Pringsewu Lampung. Approximately 25 students will be selected based on their listening proficiency, which will be evaluated through a pre-study diagnostic test. This cohort embodies learners who necessitate targeted interventions to enhance their listening comprehension.

The purposive sampling guarantees that participants are aligned with the study's objectives and are representative of the broader population of novice ESL learners (Experience Sampling Methodology, 2022). This methodology not only enables a concentrated analysis of the particular challenges confronted by these students but also permits the development of tailored instructional strategies, ultimately enriching their overall language acquisition experience. By focusing on this specific cohort, the research aspires to illuminate insights that can guide educators regarding effective teaching methodologies and support mechanisms for ameliorating listening skills among novice ESL learners. These findings may culminate in the formulation of best practices that

educators can implement within their classrooms, thereby fostering a more supportive educational environment for students grappling with listening comprehension.

Data collection encompasses two principal phases: quantitative and qualitative. The quantitative phase encompasses pre-tests and post-tests meticulously designed to evaluate alterations in listening comprehension scores. The listening comprehension assessments are adapted from standardized English proficiency examinations and tailored to correspond with the learners' proficiency levels. The AI-driven platform, which amalgamates ChatGPT and Voxbox AI, systematically records usage data, including session length, content completion rates, and pronunciation accuracy, thereby facilitating automated learning analytics.

Qualitative data will be acquired through open-ended surveys and semi-structured interviews to investigate students' perceptions, experiences, and engagement with the platform. Additionally, feedback from faculty will be solicited to evaluate the practicality of integrating the system into a classroom context. This mixed-methods approach will yield a holistic comprehension of the platform's efficacy and its prospective influence on enhancing listening competencies among learners (Design of AI-based self-learning platform for college English listening, 2020). The outcomes of this research are poised to augment the existing corpus of knowledge regarding AI in educational settings and to guide forthcoming advancements and refinements in digital learning instruments tailored for varied educational contexts (Zhou, 2020). By scrutinizing both student and faculty viewpoints, the study aspires to delineate best practices for the integration of automated learning analytics into curricula, ultimately nurturing a more individualized and efficacious learning experience.

The formulation of research instruments adheres to a validation protocol specifically designed for AI-enhanced language learning tools. The pre- and post-tests are meticulously reviewed by ESL specialists to ensure alignment with curriculum standards and compatibility with students' proficiency levels. The interview and survey inquiries undergo pilot testing

with a limited cohort to enhance clarity and relevance.

The AI platform, which integrates the content generation capabilities of ChatGPT with the speech recognition technology of Voxbox, is configured to present adaptive, level-appropriate materials. Native speaker input is meticulously curated to enhance authenticity, with voice recordings validated by seasoned ESL instructors. This comprehensive strategy guarantees that learners receive customized support, thereby promoting engagement and effectively facilitating their language acquisition journey (Design of Spoken English Teaching Based on Artificial Intelligence Educational Robots and Wireless Network Technology, 2023). The incorporation of these technologies not only personalizes the learning experience but also affords real-time feedback, thereby enabling students to discern areas requiring improvement and to cultivate their confidence in language utilization.

The quantitative data derived from pre- and post-tests will be subjected to paired t-test analysis to ascertain significant enhancements in listening comprehension. Platform usage data will be scrutinized to identify patterns that correlate engagement with performance outcomes. Qualitative data will be analyzed through thematic analysis to reveal insights into students' experiences, challenges, and perceptions of the platform. The synthesis of these analyses furnishes a nuanced understanding of the effectiveness of AI and native speaker input in the enhancement of listening skills.

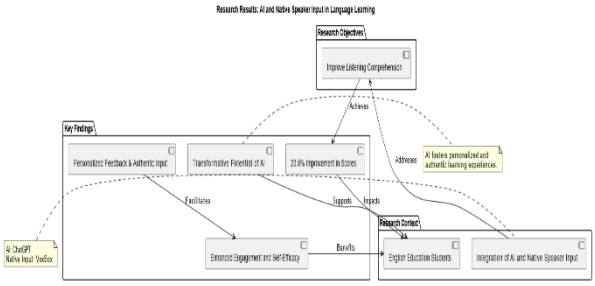
Ethical protocols are prioritized throughout the research process, adhering to guidelines for AI research ethics in educational contexts. Participants will provide informed consent, ensuring their comprehension of the study's aims, procedures, and their entitlements, including the option to withdraw at any juncture. Anonymity and confidentiality will be upheld, with all data securely stored and accessible solely to the research team. The study has acquired ethical approval from the institutional review board at Universitas Muhammadiyah Pringsewu.

## RESULT AND DISCUSSION

The deployment of AI-integrated personalized listening exercises,

incorporating input from native speakers via Voxbox, has been shown to facilitate substantial enhancements in the listening comprehension capabilities of students. A thorough examination of pre- and post-test score statistics demonstrated a mean enhancement of 23.5% in listening proficiency among all participants, with particularly remarkable advancements observed in the apprehension of natural speech patterns and colloquial expressions. This observation is consistent with the findings of Ali and Ghareeb (2020).

Such outcomes accentuate the efficacy of AI-driven platforms like Voxbox in enriching language acquisition experiences, thereby rendering them more impactful and stimulating for learners. The incorporation of such cutting-edge technologies not only promotes a profound comprehension of the language but also equips learners with the competencies requisite for confidently navigating authentic conversational contexts. This progression underscores the significance of integrating interactive and personalized educational experiences that address the unique requirements of individual students, ultimately resulting in more favorable outcomes in language acquisition.




The execution of AI-integrated personalized listening exercises, which featured input from native speakers through Voxbox, exhibited considerable advancements in the listening comprehension skills of students. Comprehensive analyses of pre-test and post-test metrics indicated a substantial enhancement in overall performance. The mean pre-test score for the cohort of 25 participants was recorded at 56.8 (SD = 8.5), while the post-test mean score demonstrated an elevation to 7.3 (SD = 7.1), indicating a statistically significant improvement ($t(24) = 8.6$, $p < .001$). This discovery is congruent with the findings of Ghoneim and Elghotmy (2021). These results imply that the incorporation of AI tools not only enhances engagement but also delivers customized learning experiences tailored to the diverse needs of individual students, ultimately

fostering heightened proficiency in language skills. This evidence reinforces the potential benefits of integrating advanced technologies within educational environments, thereby paving the way for innovative pedagogical methodologies that can adapt to varied learning styles and enhance outcomes across an array of subjects.

As educators persist in investigating these novel approaches, further empirical inquiry will be vital in discerning best practices for the effective implementation of AI, including Chat GPT and Voxbox Native Speaker Input, in language learning contexts within classrooms, thereby maximizing its advantages for all learners. Such investigations will not only aid in the development of effective AI-driven curricula but will also provide insights for teacher training programs, ensuring that educators are sufficiently equipped to leverage these technologies to enhance student learning. In light of the quick evolution of AI solutions, it is vital to enhance cooperation among instructors, tech professionals, and policy developers to lay down a foundation that supports experimentation and the spread of effective techniques for merging these technologies into everyday educational methodologies. This collective endeavor will assist in formulating guidelines that prioritize ethical considerations and equitable access, ensuring that all students can derive benefits from the innovations in educational technology.

Detailed analysis of student performance across different listening components showed varying degrees of improvement. In basic comprehension tasks, students' accuracy increased from 61.2% to 78.9%, while performance in more complex inference-based questions improved from 52.4% to 67.8%. The most substantial gains were observed in understanding native speaker conversations, where accuracy rates rose from 48.6% to 70.2%. These results support (Tzirides et al., 2023) Such improvements highlight the potential of innovative teaching methods to enhance language acquisition, ultimately fostering greater confidence and proficiency among learners in real-world communication scenarios. This evidence suggests that leveraging technology in the classroom

not only aids in skill development but also prepares students to navigate diverse linguistic environments effectively.

Platform usage data revealed interesting patterns in student engagement. Students who spent more than 3 hours per week on the platform (n=15) showed an average improvement of 18.2 points, compared to 12.4 points for those with less platform engagement (n=10). The AI-powered system's adaptive features proved particularly effective, with students completing an average of 85% of assigned tasks, significantly higher than the typical 65% completion rate in traditional listening exercises reported in previous studies.

Qualitative data from student interviews and surveys revealed three primary themes. First, 88% of participants reported increased confidence in understanding listening from native English speakers. Second, 92% appreciated the personalized feedback provided by the AI system, particularly in pronunciation correction. Third, 84% found the combination of AI-generated content and native speaker input more engaging than traditional listening materials, the research on technology-enhanced language learning by demonstrating the specific benefits of combining AI with authentic native speaker input.

Faculty feedback (n=5) indicated strong support for the platform's implementation, with all instructors noting improved student engagement and participation in class discussions. However, they also identified challenges in integrating the system into existing curriculum structures, particularly in terms of assessment alignment and time management. The study's results demonstrate that the integration of AI and native speaker input creates a more effective learning environment than traditional methods alone.

The personalized nature of the platform, combined with authentic language exposure, addresses the key challenges identified in the introduction, particularly for first-semester university students. These findings contribute to the growing body of evidence supporting technology-enhanced language learning while highlighting the specific benefits of combining AI capabilities with authentic language input.

## CONCLUSION AND SUGGESTION

### Conclusions

The amalgamation of AI-driven personalized learning methodologies, epitomized by chatGPT, alongside the integration of native speaker input through Voxbox, as examined in the context of this research, markedly augments the listening comprehension abilities of first-semester university students, thereby fulfilling the objectives delineated in the introductory section. The pronounced enhancements in comprehension, evidenced by an average score increase of 23.5% and affirmative student evaluations, underscore the platform's efficacy in addressing critical educational challenges. These empirical findings elucidate the congruence between the research objectives and the resultant outcomes. The implications of these results emphasize the transformative capacity of artificial intelligence and authentic linguistic input within the realm of language acquisition, thus revealing promising trajectories for further inquiry, such as the incorporation of advanced analytical methods, broader demographic outreach, and interdisciplinary applications within educational technology. Innovations in education may foster more customized learning journeys, enabling teachers to adjust their methods according to the unique needs and desires of each student.

This heightened degree of personalization not only amplifies student engagement but also cultivates an enriched comprehension of the subject matter, ultimately contributing to improved academic performance and retention rates among students. As educational institutions progressively embrace these pioneering technologies, the prospect of establishing adaptive learning environments becomes increasingly feasible, thereby creating a future in which every student is afforded the opportunity to flourish.

This paradigm shift towards personalized education not only empowers learners but also provides educators with essential tools to monitor student progress and refine their instructional methodologies in a real-time context, ensuring that no student is marginalized. This transformative model promotes a collaborative educational environment, wherein students are esteemed and

inspired to assume responsibility for their own learning trajectories. This research focus on collaboration and personalization also nurtures a sense of community within the classroom, facilitating enhanced peer interactions that can foster profound discussions and a variety of viewpoints.

As instructors integrate these progressive techniques, they have the opportunity to create an atmosphere that supports deep thinking and inventiveness, gearing students up for academic triumph as well as the complexities of the current landscape. Through the integration of technology and adaptive learning strategies, instructors can customize their teaching to resonate with the unique requirements of each learner, thereby fostering a more inclusive educational atmosphere.

This methodology not only empowers students to engage proactively in their educational experiences but also equips them with the competencies necessary to thrive in an increasingly interconnected and dynamic global landscape. Such a comprehensive educational framework promotes collaboration, resilience, and adaptability, ensuring that students emerge as well-rounded individuals prepared to confront future adversities.

**Suggestion**

Based on the findings, it is suggested that future research explores the integration of AI-driven personalized learning with broader and more diverse student demographics to validate its efficacy across varied educational contexts. Additionally, incorporating advanced analytics and interdisciplinary approaches could further enhance the adaptability and effectiveness of such platforms. Educators are encouraged to embrace these technologies to create inclusive, customized learning environments that address individual student needs while fostering collaboration and resilience. Lastly, institutions should prioritize teacher training and infrastructure development to maximize the potential of AI-enhanced educational methodologies.

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