Exploring the Use of AI-Enhanced Listening Comprehension Tools by EFL Students in the English Department at Universitas Bhinneka PGRI

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Abstract

The rapid growth of Artificial Intelligence (AI) in education has introduced new opportunities for improving English listening comprehension, a skill many EFL learners continue to find challenging. This study explores the use of AI-enhanced listening tools among students in the English Department at Universitas Bhinneka PGRI. The research aims to identify the AI tools commonly used by students, examine their perceptions of usefulness, ease of use, and engagement, and investigate the difficulties they encounter when using these tools. A qualitative descriptive exploratory design was employed, combining a questionnaire distributed to 43 students with semi-structured interviews conducted with 10 participants. Data were analyzed using the Miles and Huberman framework, which includes data reduction, data display, and conclusion drawing. The findings indicate that YouTube Auto-Caption is the most widely used AI tool, followed by ELSA Speak and Duolingo, mainly due to their accessibility and familiar interfaces. Students reported positive perceptions of AI-enhanced listening tools, noting that features such as automatic captions, speed control, replay functions, and pronunciation feedback helped them better understand spoken English and increased their motivation to practice listening. Despite these advantages, several challenges emerged, including inaccurate captions, unstable internet connections, limited free features, and insufficient guidance on how to use the tools effectively.Overall, the study concludes that AI-enhanced tools have strong potential to support EFL learners' listening development, but their effectiveness depends on both technological quality and pedagogical support. The findings highlight the need for teachers to provide structured guidance and for developers to improve usability and accessibility. Future research may examine the long-term impact of AI tools or compare the effectiveness of different platforms in various learning contexts.

Keywords: *Artificial-Intelligence Tools, Listening Comprehension, EFL Students.*

INTRODUCTION

In recent years, the use of Artificial Intelligence (AI) in education has expanded rapidly. Many researchers and educators are exploring how AI can support learning across different subjects, including English. In English as a Foreign Language (EFL) contexts, AI is increasingly integrated into language instruction to enhance skills development (Fitriati & Williyan, 2025). Listening, in particular, is a crucial yet challenging skill that requires learners to process meaning, understand sounds, and follow spoken ideas in real time.

Many EFL learners in Indonesia, including university students, continue to experience difficulties with listening comprehension. Fast speech, unfamiliar accents, and limited vocabulary often hinder their understanding (Wulandari & Sintawati, 2021).

(Goh, 2000) notes that listening problems frequently stem from learners' limited capacity to process spoken input quickly. Traditional listening materials, such as recordings or videos, may be too difficult or insufficiently personalized, and they often lack immediate feedback.

Advances in AI have introduced tools that can provide significant support for listening practice. AI-enhanced features such as transcripts, speed control, segmentation, and instant repetition help learners manage difficult input more effectively. (Gonzalez-Lloret, 2019) highlights that AI can deliver personalized learning experiences by adjusting to learners' proficiency levels, which can increase comfort and confidence in practicing listening.

Many AI-based applications now include interactive or user-friendly features, enabling students to choose topics, practice pronunciation, or complete listening tasks with automated feedback. Because these tools are available on smartphones and computers, they are highly accessible to today's digitally literate students. (He, 2025) emphasize that AI-supported tools maintain learner engagement and promote greater autonomy.

Popular AI-enhanced listening applications such as YouTube Auto-Caption, YouGlish, ELSA Speak, VoiceTube, and LingQ offer features including automated captions, authentic pronunciation models, vocabulary support, and feedback. Their accessibility and ease of use make them appealing to EFL learners who engage in self-directed listening practice.

Several studies have reported positive outcomes related to AI-supported listening tools. (Aldukhayel, 2021) found that captioning tools help learners process spoken input more efficiently. (Vancova, 2023) observed improvements in pronunciation awareness and reduced listening anxiety through apps like YouGlish and ELSA Speak. (Lin & Lin, 2019) suggested that AI tools promote learner autonomy by enabling control over materials and playback settings.

In a previous study, the researcher examined general student perceptions of AI in English learning, identifying advantages such as increased motivation and personalization, as well as challenges related to accuracy and digital readiness (Huda & Roistika, 2025). However, that study did not investigate any specific language skill. This creates a research gap that the current study addresses by focusing specifically on listening comprehension and students' real experiences using AI listening tools.

Despite the documented benefits, students' actual experiences with AI listening applications may vary. Some may find the tools helpful and motivating, while others may struggle with technical issues, unfamiliar features, or inconsistent accuracy. Exploring students' perspectives is therefore essential to understanding the effectiveness and limitations of these tools in authentic learning contexts.

This study investigates the perceptions and experiences of students from the English Department at Universitas Bhinneka PGRI in using AI-enhanced listening tools. These students, who are developing more advanced listening skills, represent a relevant group for examining how AI can support comprehension of longer and more complex spoken texts.

The findings of this research aim to provide insights for teachers, developers, and institutions regarding the integration of AI in listening instruction. Understanding how students use, benefit from, and struggle with AI tools can guide more effective adoption in classrooms and contribute to broader discussions on technology-supported language learning.

RESEARCH METHODOLOGY

This study employed a qualitative descriptive exploratory research design. The purpose of this design is to describe and explore how students in the English Department at Universitas Bhinneka PGRI perceive and experience the use of AI-enhanced listening comprehension tools. A qualitative approach was chosen because it enables the researcher to gather rich, detailed information from participants in their natural learning context. (Creswell & Poth, 2017) states that qualitative research helps researchers understand how individuals interpret their experiences and construct meaning from them.

The descriptive aspect of the study focuses on presenting students' behaviors, feelings, and opinions as they occur, without manipulating the situation or applying any intervention. According to (Sandelowski, 2000), qualitative descriptive research aims to provide a clear and straightforward account of experiences using participants' own words. Meanwhile, the exploratory element is appropriate because the use of AI tools for listening comprehension is still relatively new in the Indonesian higher education context. As (Stebbins, 2011) explains, exploratory research is suitable for investigating topics that have not been studied extensively and for identifying emerging themes or issues.

This design is considered appropriate because it allows the researcher to understand students' real experiences, perceptions, and challenges when using AI-enhanced listening tools.

The participants of this study were students from the English Department at Universitas Bhinneka PGRI. A total of 43 students participated in the questionnaire stage, selected through convenience sampling based on their availability and willingness to participate.

For the interview stage, 10 students were selected using purposive sampling to ensure a range of perspectives based on their questionnaire responses. The interviewees were chosen to represent different levels of familiarity and experience with AI-enhanced listening tools.

Two techniques were used to collect the data: questionnaire and interview. A structured questionnaire consisting of closed-ended and open-ended questions was distributed to collect information about the AI tools students commonly use, their perceptions of usefulness, ease of use, and engagement, as well as the challenges they encounter. Interviews were conducted with 10 selected students to gain deeper insights into their experiences. The semi-structured format allowed the researcher to follow a guided set of questions while also exploring emerging topics during the interview. Both instruments were designed to capture authentic student experiences and attitudes toward AI-enhanced listening tools.

The data in this study were analyzed using the interactive model of Miles and Huberman (Miles et al., 2014), which consists of three main stages: data reduction, data display, and conclusion drawing/verification. This analytical model was considered appropriate because it provides a systematic and rigorous way of understanding students' experiences and perceptions of AI-enhanced listening tools.

FINDING AND DISCUSSIONS
FINDING
This section presents the findings obtained from two main data sources: a questionnaire completed by 43 students of the English Department at Universitas Bhinneka PGRI and semi-structured interviews with 10 selected participants. The questionnaire consisted of three parts: background information, Likert-scale statements covering five major aspects (usefulness, ease of use, engagement and motivation, perceived learning improvement, and challenges), and open-ended questions. The interview data were used to enrich the quantitative findings by providing deeper insights into students' experiences and perceptions.

Findings from Questionnaire
Based on the questionnaire data, it can be described that regarding the frequency of using AI listening tools, more than half of the students reported using them sometimes to often, while 16.3% used the tools daily. Only a small portion (7.0%) never used AI listening tools, suggesting that the integration of technology in language learning is already familiar to most students.

In terms of tool preference, YouTube Auto-Caption was the most widely used tool (88.4%), followed by ELSA Speak (58.1%). Tools such as YouGlish (14%), VoiceTube 16.3%, and LingQ (4.7%) were less commonly used. A few students (11.6%) also reported using Duolingo as an additional listening tool. (See Figure 1)

Figure 1 Distribution of AI-Enhanced Tools Used by Students
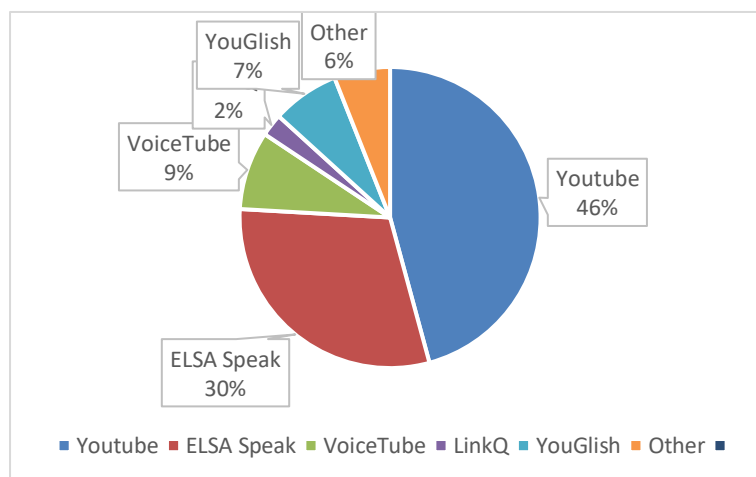
From the aspect of "Usefullnes", it can be concluded that the aspect shows a strong positive response. Students generally feel that AI tools: improve their understanding of spoken English, provide helpful learning features, assist vocabulary development, make learning more efficient. However, feedback quality varies across applications, which affects the perceived usefulness of certain tools.

The second aspect measured how easy the AI-enhanced listening tools were for students to operate and navigate. The findings suggest that students: find the tools' interfaces user-friendly, can easily access and choose suitable listening resources, experience some technical issues, but not frequently. These results indicate that ease of use is not a major barrier, allowing students to engage with AI tools independently.

"The Engagement and Motivation" aspect shows that students generally feel more involved and energized when using AI-enhanced listening tools. The data clearly show that AI-enhanced listening tools: make listening practice more enjoyable, increase motivation, encourage independent learning, benefit significantly from gamified or interactive features. Overall, students respond positively to AI-based learning environments, which supports the integration of such tools in EFL listening instruction.

The next aspect is "Perceived Learning Improvement" aspect. The result shows that students believe AI-enhanced tools moderately to strongly improve their listening skills. The findings suggest that AI-enhanced listening tools: help improve general listening comprehension, support understanding of long or complex spoken texts, increase students' confidence, and provide some help with accent recognition, though challenges remain. In conclusion, students perceive meaningful improvement, but the effects vary depending on usage frequency, tool type, and the complexity of the listening material.

Meanwhile, the aspect of "Challenges and Barriers" shows that AI-enhanced listening tools offer clear benefits, but students still face several limitations: limited time for regular practice, occasional technical problems, difficulty navigating advanced or unfamiliar features, inconsistent pronunciation recognition, and minimal privacy concerns. Overall, the challenges are manageable but important to address. Teachers may need to provide guidance, structured activities, and training to help students maximize the benefits of AI tools.

The quantitative result can be seen in the diagram below (Figure 2).

Figure 2 Mean Score Based on Questionnaire Aspects
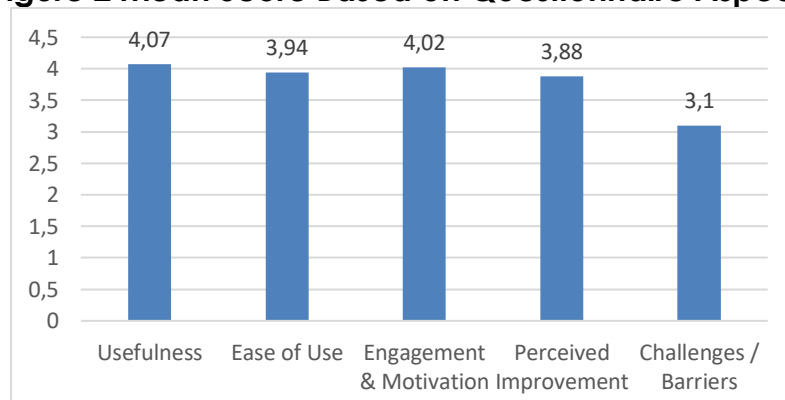
The analysis of open-ended responses shows that: (a) students find auto-captions, transcripts, and playback controls to be the most helpful features, (b) they encounter technical difficulties, caption inaccuracy, and challenges using advanced features, (c) students suggest improving accuracy, simplifying interfaces, enabling offline access, and aligning content with classroom needs. These findings reinforce the results of the Likert-scale section and highlight the importance of providing technical, instructional, and pedagogical support to maximize the benefits of AI-enhanced listening tools. (See table below)

Table 1 Findings from Open-Ended Responses

Question/topic	Theme	Number of Responses	Percentage
Helpful Feature	Automatic captions / transcripts	16	37%
	Playback control (slow speed, repeat segment)	11	26%
	Pronunciation feedback (ELSA, YouGlish)	8	19%
	Vocabulary support (pop-up meanings, word lists)	5	12%
	Flexible topics / authentic content	3	7%
Problems Experienced	Internet or technical problems	14	33%
	Inaccurate captions/transcriptions	9	21%
	Difficulty using advanced features	8	19%
	Accent recognition or pronunciation mismatch	7	16%
	Distractions (ads, unrelated content)	5	11%
Suggestions	Improve caption and pronunciation accuracy	13	30%
	Simpler interface / clearer instructions	10	23%
	Offline mode or low-data mode	8	19%
	More academic/classroom-relevant content	7	16%
	Better integration with classroom activities	5	12%

Findings from Interview

The semi-structured interviews with ten participants were conducted to gain deeper insights into students' experiences, perceptions, and challenges when using AI-enhanced listening tools. The findings complement and enrich the questionnaire results, providing a more detailed picture of how students

interact with these tools in real learning situations. Through the processes of data reduction, categorization, and thematic analysis, several major themes emerged, as described below.

a. Theme 1: Tool Usage Patterns

Most interview participants reported that YouTube Auto-Caption was the AI tool they used most frequently. The main reasons included accessibility, familiarity, and the availability of various listening materials. Several students also used ELSA Speak, mainly because of its pronunciation feedback, which they believed indirectly improved their listening ability. Meanwhile, tools such as YouGlish, LingQ, and VoiceTube were used less frequently because students were less familiar with them or found the interface more complicated.

b. Theme 2: Perceived Usefulness

Almost all students agreed that AI-enhanced listening tools provided clear benefits in improving their comprehension. Features such as automatic captions, speed control, replay functions, and transcripts were frequently mentioned as helpful in reducing listening difficulty. Students also noted that these tools supported vocabulary building by enabling them to review unfamiliar words repeatedly.

c. Theme 3: *Ease of Use*

Students generally found the AI tools easy to use, especially those with simple and familiar interfaces like YouTube. However, some tools such as LingQ and YouGlish were perceived as more complex, particularly for students who had never used them before. Technical issues were also mentioned, including inaccurate captions, slow loading, and unstable internet connections.

d. Theme 4: Engagement and Motivation

Most students reported that AI tools made listening practice more engaging and enjoyable. The ability to select topics of personal interest was a major factor in increasing motivation. Some participants also felt more excited to practice listening when interactive features such as pronunciation feedback, quizzes, or gamified elements were available.

e. Theme 5: Challenges and Difficulties

Despite the benefits, students also reported several challenges. The most frequent issue was technical problems, such as inaccurate auto-captions and internet instability. Some students found that free versions of certain applications limited access to essential features. Others struggled to choose appropriate materials due to the overwhelming number of options available, especially on YouTube.

f. Theme 6: Suggestions for Improvement

Participants offered suggestions for both teachers and developers. Many students recommended that teachers provide clearer instructions, tutorials, and curated lists of recommended AI tools to avoid confusion and maximize learning benefits. For developers, students suggested improving caption accuracy, simplifying interfaces, and offering more free features.

In summary, the interview results confirm and reinforce the quantitative data. Students generally view AI-enhanced listening tools as beneficial, easy to use, and motivating. However, they still face difficulties related to technical issues, limited features in free applications, and a lack of guidance on effective usage. The insights gained from the interviews provide valuable direction for teachers, developers, and curriculum designers in integrating AI tools more strategically in listening instruction.

DISCUSSION

The findings of this study show that AI-enhanced listening tools are widely used and positively perceived by EFL students in the English Department at Universitas Bhinneka PGRI. These results align with the growing body of literature emphasizing the role of artificial intelligence in supporting language learning, particularly in developing listening comprehension. The discussion below elaborates on how these findings relate to the research questions and previous studies.

Students' Use of AI-Enhanced Listening Tools

The study reveals that YouTube Auto-Caption is the most commonly used AI-enhanced tool among students, followed by ELSA Speak and Duolingo, while VoiceTube, YouGlish, and LingQ are less commonly used. This trend indicates that students prefer tools that are easily accessible, free, and familiar. YouTube's widespread popularity is likely due to its intuitive interface, diverse content availability, and automatic captioning, which students reported as very helpful.

These findings support (Aldukhayel, 2021), who noted that AI-powered captioning tools increase listening accessibility by providing visual scaffolding. Similarly, (Supendra & Amilia, 2021) explained that students tend to adopt digital tools they already use in their daily lives, which may explain why YouTube dominates over more specialized platforms that require new learning efforts. The limited use of AI apps like LingQ and YouGlish may be attributed to the lack of familiarity and higher cognitive load required to navigate their interfaces.

Overall, students' tool preferences confirm that accessibility and familiarity play an important role when choosing AI listening tools.

Students' Perceptions of Usefulness, Ease of Use, and Engagement

The questionnaire results showed high mean scores across all perception aspects, indicating that students find AI tools useful, easy to use, and engaging. These findings were confirmed by interview data, in which students highlighted the usefulness of captions, transcripts, speed control, and replay functions. They also mentioned that AI tools help increase vocabulary, improve comprehension of fast speech, and build confidence.

These findings align with (Gonzalez-Lloret, 2019), who emphasized that AI-supported tools provide personalized learning experiences that adapt to students' proficiency levels. The increased engagement and motivation reported by students are consistent with studies by (Vancova, 2023), which

found that interactive AI features promote learner autonomy and reduce listening anxiety. In addition, the ability to choose interesting topics independently reflects the principles of self-directed learning, which have been shown to enhance intrinsic motivation in digital learning environments.

The overall positive perceptions suggest that AI tools not only enhance comprehension but also improve the emotional experience of learning, making listening practice more enjoyable and less stressful.

Challenges and Difficulties Encountered by Students

Although the overall perception of AI tools is positive, students still face several challenges. The most common issues are related to technical problems, such as inaccurate captions and unstable internet connections. Many students also reported difficulty selecting appropriate materials, especially on platforms with a large volume of content like YouTube. Additionally, the limitations of free versions of applications (e.g., restricted features in ELSA, VoiceTube, and LingQ) reduce the effectiveness of some tools.

These challenges echo the findings of (Goh, 2000), who emphasized that listening difficulties often arise from both linguistic and external factors. Technological limitations, as noted in (Lin & Lin, 2019), continue to be a barrier in digital learning environments, particularly in regions where internet stability varies. Furthermore, the students' need for stronger teacher guidance supports the argument made by (Reinders & White, 2016) that effective technology integration must include pedagogical scaffolding, not only access to the tools.

Thus, although AI offers significant advantages, its effectiveness depends on technical quality, user support, and appropriate instructional design.

CONCLUSION AND SUGGESTION
CONCLUSION

This study explored the use of AI-enhanced listening comprehension tools among EFL students in the English Department at Universitas Bhinneka PGRI. Using a qualitative descriptive exploratory design, data were collected through questionnaires administered to 43 students and interviews with 10 participants. The aim was to identify the AI tools students commonly use, examine their perceptions of usefulness, ease of use, and engagement, and understand the challenges they encounter during listening practice.

The findings show that YouTube Auto-Caption is the most frequently used AI tool, mainly due to its accessibility and familiarity. Students generally perceived AI tools as useful for improving their listening comprehension, especially through features such as captions, speed control, replay functions, and pronunciation feedback. The tools also increased students' motivation and made listening practice more enjoyable. However, several challenges were identified, including inaccurate captions, unstable internet connections, limited free features, and a lack of guidance on how to use the tools effectively.

Overall, the study concludes that AI-enhanced tools have strong potential to support EFL listening development, but their effectiveness depends on both technological reliability and appropriate instructional support.

SUGGESTION

These results suggest that educators should provide clearer guidance on the use of AI tools, while developers should improve usability and accessibility. Future studies may investigate the impact of AI tools on long-term listening improvement or compare the effectiveness of different platforms across learning contexts.

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