



## AI-POWERED PRONUNCIATION TOOLS FOR IMPROVING SPEAKING ACCURACY AND CONFIDENCE OF EFL LEARNERS

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### Abstract

This article examines the role of AI-powered pronunciation tools in improving speaking accuracy and confidence among EFL learners. Pronunciation is an essential part of successful communication, yet many learners experience difficulties with sounds, word stress, sentence rhythm, intonation, and fluency. In traditional classrooms, teachers may not always have enough time to provide individual pronunciation feedback to every student. AI-powered tools, including speech recognition applications, pronunciation analysis platforms, and interactive speaking assistants, can provide learners with additional opportunities for practice and immediate feedback. This article discusses how such tools can help learners notice pronunciation errors, practise repeatedly, improve intelligibility, and become more confident speakers. The study argues that AI pronunciation tools should not replace teacher instruction, but they can support classroom learning when used with clear pedagogical guidance. The findings suggest that AI-assisted pronunciation practice can make speaking lessons more personalized, interactive, and learner-centered.

**Key words:** *AI-powered tools; pronunciation; speaking accuracy; EFL learners; speech recognition; confidence; English language teaching; digital learning*

### Introduction

Speaking is one of the most important skills in English language learning because it allows learners to express ideas, ask questions, participate in discussions, and communicate in real-life situations. However, successful speaking does not depend only on grammar and vocabulary. Pronunciation also plays an important role in communication. If learners pronounce words unclearly, use incorrect stress, or speak with unnatural rhythm, their message may become difficult to understand.

For many EFL learners, pronunciation is a challenging area. Some students know the correct word in written form, but they are not sure how to pronounce it. Others may pronounce individual words correctly but struggle with connected speech, sentence stress, and intonation. This can reduce their confidence and make them afraid of speaking in front of classmates or teachers. As a result, pronunciation problems may become not only a language issue, but also a psychological barrier.



In many English classrooms, pronunciation is not always given enough attention. Teachers usually need to cover grammar, vocabulary, reading, listening, writing, and speaking within limited lesson time. Because of this, individual pronunciation feedback may be difficult to provide regularly. Some students receive correction, while others continue making the same mistakes without noticing them. This situation shows the need for additional tools that can support pronunciation practice outside the classroom.

AI-powered pronunciation tools offer new possibilities in English language teaching. These tools can use speech recognition technology to listen to students' pronunciation, compare it with a model, and provide feedback. Some applications show which sounds were pronounced incorrectly, while others give scores, pronunciation tips, audio models, or repetition exercises. Such tools allow students to practise independently and receive immediate responses.

The use of artificial intelligence in pronunciation learning is especially relevant in modern education. Students are already familiar with smartphones, applications, voice assistants, and digital platforms. If these technologies are used for language learning, they can make pronunciation practice more accessible and less stressful. Learners can repeat words or sentences several times without feeling embarrassed. They can practise privately and gradually build confidence.

This article explores how AI-powered pronunciation tools can help EFL learners improve speaking accuracy and confidence. It also discusses the teacher's role, the importance of feedback, and the practical ways these tools can be integrated into English lessons.

### **Literature Review**

Pronunciation has long been considered an important component of communicative competence. Clear pronunciation helps listeners understand the speaker's message and supports successful interaction. Celce-Murcia, Brinton, and Goodwin (2010) emphasize that pronunciation teaching should include not only individual sounds but also stress, rhythm, intonation, and connected speech. This means that pronunciation is not limited to producing separate words correctly; it is part of natural communication.

The goal of pronunciation teaching is not necessarily to make learners sound like native speakers. Many scholars argue that intelligibility is more important than native-like pronunciation. Derwing and Munro (2015) state that pronunciation instruction should focus on helping learners become understandable in communication. This view is especially important in EFL contexts, where learners may use English with people from different countries and language backgrounds.



Speaking confidence is closely connected with pronunciation. When students believe that their pronunciation is unclear, they may avoid speaking. Thornbury (2005) explains that speaking requires real-time language processing, which can create pressure for learners. Pronunciation difficulties add to this pressure because learners must think about meaning, grammar, vocabulary, and sound at the same time.

Feedback is an essential part of pronunciation development. Learners often cannot hear their own pronunciation mistakes clearly. They need external feedback from teachers, peers, or digital tools. Harmer (2015) notes that correction and feedback should help learners improve without discouraging them from speaking. This is particularly important in pronunciation teaching, because too much correction during speaking may reduce learners' willingness to communicate.

Technology has increasingly been used to support pronunciation learning. Computer-assisted pronunciation training allows learners to listen, repeat, record, compare, and receive feedback. Neri, Cucchiari, and Strik (2002) suggest that speech technology can provide useful pronunciation practice because learners can repeat tasks and receive individualized feedback. This is one of the main advantages of digital pronunciation tools compared with traditional classroom correction.

AI-powered speech recognition tools can make pronunciation learning more interactive. They can analyze learners' speech and show immediate results. Although such tools are not perfect and may sometimes misinterpret learner speech, they can still help students notice pronunciation issues and practise more regularly. Godwin-Jones (2018) points out that mobile and AI-based language tools can support autonomous learning when they are used with clear learning goals.

In English language teaching, AI tools should be seen as supportive resources rather than replacements for teachers. Teachers understand the learners' level, classroom context, emotional needs, and communicative goals. AI tools can provide practice and feedback, but teachers are needed to explain errors, choose appropriate tasks, and connect pronunciation practice with real communication.

Therefore, the literature suggests that AI-powered pronunciation tools can support speaking accuracy, learner autonomy, and confidence if they are integrated carefully into classroom instruction.

### **Methodology**

This study uses a descriptive-analytical research design. It is based on the analysis of teaching approaches related to pronunciation instruction, digital learning, artificial intelligence, speech recognition, and EFL speaking development. The study also considers practical classroom application for English language learners in higher education.



The proposed teaching model includes several types of AI-assisted pronunciation activities:

**1. Word-level pronunciation practice**

Students practise individual words and receive feedback on difficult sounds, syllables, and stress patterns.

**2. Sentence repetition tasks**

Students listen to model sentences, repeat them, and compare their pronunciation with the original version.

**3. Recording and self-analysis**

Students record their speech, listen to it again, and identify pronunciation problems with the help of AI feedback.

**4. Dialogue practice with AI assistants**

Students practise short conversations with AI tools in a low-pressure environment.

**5. Pronunciation journal**

Students keep a record of difficult words, repeated mistakes, improvement notes, and weekly speaking goals.

The activities follow three main stages: preparation, AI-assisted practice, and classroom feedback. In the preparation stage, the teacher introduces pronunciation focus, such as word stress, difficult sounds, or intonation. In the AI-assisted practice stage, students use digital tools to practise and receive immediate feedback. In the classroom feedback stage, the teacher reviews common difficulties, gives explanations, and organizes communicative speaking tasks.

**Results**

The analysis suggests that AI-powered pronunciation tools can support EFL learners' speaking development in several important areas.

<b>Skill area</b>	<b>Positive classroom effect</b>
Pronunciation accuracy	Students notice and correct sound, stress, and intonation problems
Speaking confidence	Students practise privately before speaking in class
Learner autonomy	Students continue pronunciation practice outside the classroom
Feedback awareness	Students receive immediate responses and track their progress
Fluency	Students repeat phrases and sentences until



development	speech becomes smoother
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The first important result is improvement in pronunciation accuracy. AI tools can help students identify specific pronunciation problems. For example, a learner may notice that they regularly mispronounce certain vowel sounds or place stress on the wrong syllable. This awareness is important because learners cannot correct mistakes they do not notice.

The second result is increased speaking confidence. Many students feel embarrassed when corrected in front of others. AI-assisted practice allows them to make mistakes privately and repeat exercises as many times as needed. This can reduce anxiety and prepare students for classroom speaking tasks.

The third result is greater learner autonomy. Students do not need to wait for the teacher to practise pronunciation. They can use mobile applications, online tools, or AI assistants outside the classroom. This encourages regular practice and helps learners take more responsibility for their progress.

The fourth result is better feedback awareness. Immediate digital feedback helps students understand their performance quickly. They can compare their first attempt with later attempts and see whether they are improving. This makes learning more visible.

Finally, AI-powered pronunciation tools can support fluency. Repetition of useful phrases, dialogues, and short sentences helps students speak more smoothly. When pronunciation becomes more automatic, learners can focus more on meaning and communication.

### **Discussion**

The results show that AI-powered pronunciation tools can make pronunciation learning more personalized and practical. In traditional classrooms, it is difficult for teachers to listen carefully to every student and correct every pronunciation problem. AI tools can provide additional practice and feedback, especially for learners who need more time and repetition.

One of the strongest advantages of these tools is privacy. Students often avoid pronunciation practice because they are afraid of making mistakes. When they practise with AI, they can repeat words and sentences without social pressure. This is important because confidence plays a major role in speaking development. A student who feels more secure during practice is more likely to participate in real communication later.

However, AI feedback should not be accepted blindly. Speech recognition tools may not always understand different accents or learner pronunciation correctly. Sometimes they may mark a pronunciation as wrong even when it is understandable. For this reason, the teacher should help students interpret AI feedback critically. The



main goal should be intelligibility, not perfect imitation of native-speaker pronunciation.

The teacher's role remains central. The teacher should select appropriate pronunciation targets, explain difficult sounds, give examples, and design communicative follow-up tasks. For example, after students practise sentence stress with an AI tool, they should use those sentences in a real dialogue or role-play. This helps connect pronunciation practice with communication.

Another important point is the balance between accuracy and fluency. If students focus only on perfect pronunciation, they may become too careful and speak slowly. If they focus only on fluency, pronunciation problems may remain. AI-assisted practice can help balance both areas. Students can practise accuracy privately, then use the improved language more fluently in classroom communication.

AI pronunciation tools are especially useful for learners who need regular practice but have limited exposure to English outside class. In many EFL contexts, students hear and speak English mainly during lessons. Digital pronunciation tools can increase exposure and provide extra practice opportunities. This makes them valuable for higher education institutions where students need English for academic and professional communication.

For Cyber University, this approach is particularly relevant because students are familiar with digital technologies and may be more motivated by modern learning tools. English instructors can use AI pronunciation tools to make speaking lessons more interactive and connected with students' digital learning habits. At the same time, the use of AI should be guided by clear classroom objectives and ethical learning practices.

There are also some challenges. Not all students may have equal access to good devices or stable internet. Some students may use the tools only mechanically, focusing on scores rather than real improvement. Others may become discouraged if the AI gives low pronunciation scores. Therefore, teachers should explain that AI scores are only one form of feedback and should not define the learner's ability.

Overall, AI-powered pronunciation tools can support EFL learners when used thoughtfully. They help students practise more often, notice their mistakes, receive feedback, and build confidence. However, their effectiveness depends on teacher guidance, appropriate task design, and connection with meaningful speaking practice.

### **Conclusion**

This article has examined the role of AI-powered pronunciation tools in improving speaking accuracy and confidence among EFL learners. The analysis shows that such tools can provide valuable support for pronunciation practice by



offering immediate feedback, repeated practice, recording opportunities, and personalized learning.

AI-assisted pronunciation activities can help students notice sound, stress, rhythm, and intonation problems. They can also reduce speaking anxiety by allowing learners to practise privately before participating in classroom communication. As a result, students may become more confident, autonomous, and willing to speak English.

However, AI tools should not replace the teacher. They should be used as supplementary resources within a clear pedagogical framework. Teachers need to guide students, explain pronunciation features, interpret AI feedback, and create communicative tasks where learners can use improved pronunciation in real interaction.

The study concludes that AI-powered pronunciation tools can be an effective addition to English language teaching. When used responsibly, they can make pronunciation learning more accessible, interactive, and learner-centered, while helping EFL learners become clearer and more confident speakers.

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