ISSN: 2716-9189 E-ISSN: 2676-1750
Journal of Studies in Language, Culture, and Society (JSLCS). (08) 02, 2025. (PP. 377-392)
Received: 30/12/2024 Accepted: 17/06/2025 Published: 30/06/2025

ASSESSING ONLINE PRONUNCIATION TUTORS FOR IMPROVING L2 LEARNERS ENGLISH PROBLEMATIC PHONEMES

Julianah Ajoke Akindele[1] Victor Ayomide Fabunmi[2]
[1] Department of English and Literary Studies,
Osun State University, Nigeria
julianah.akindele@uniosun.edu.ng
[2] Department of English and Literary Studies,
Osun State University, Nigeria
victor.fabunmi@pgc.uniosun.edu.ng

Abstract: This paper investigates the effectiveness of online pronunciation platforms in helping second language (L2) learners of English overcome difficulties with problematic phonemes, which are sounds that L2 learners often struggle to perceive and articulate. These phonemes include English sounds like /θ/, /ð/, /v/ and /ʧ/, each presenting unique challenges due to unfamiliar articulation or differences from similar sounds in the learner's native language. Online pronunciation platforms, incorporating technologies such as artificial intelligence, real-time feedback, and interactive exercises, provide accessible and adaptive pronunciation training that addresses these difficulties. The need for online pronunciation tools stems from traditional instruction's limitations, particularly in offering individualised feedback and sufficient pronunciation practice in a variety of linguistic contexts. Participants in this research include L2 learners of English from Osun State University who actively utilise online pronunciation tools, such as ELSA Speak, SpeechAce.The outcomes reveal that 80% use online platforms regularly (daily or weekly), and 85% find these tools effective or very effective in improving pronunciation. A majority (60%) reported significant improvement, particularly with problematic phonemes like /θ/ and /ð/. Online platforms such as ELSA Speak and SpeechAce provide real-time feedback, interactive exercises, and progress tracking, with 70% of participants affirming the effectiveness of these features in correcting pronunciation errors. Also, 90% agreed that these tools promote autonomous learning. Despite their advantages, 45% of respondents noted limitations, including a lack of communicative practice and nuanced feedback. While 55% believed that online tools could not replace traditional classroom instruction, 55% suggested incorporating real-time communicative scenarios to enhance their effectiveness. This study concludes that online pronunciation platforms are a valuable complement to traditional methods, offering innovative solutions for improving L2 pronunciation accuracy and autonomy, while emphasizing the need for enhancements to address contextual communication skills.

Keywords: Online pronunciation tutors, L2 learners', Problematic English Phonemes, Pronunciation, classroom, Real-time feedback, Autonomous learning

How to cite the article :
Akindele, J. A., & Fabunmi, V. A. (2025). Assessing Online Pronunciation Tutors for Improving L2 Learners English Problematic Phonemes. *Journal of Studies in Language, Culture, and Society (JSLCS)8*(2), 377-392.

[1]Corresponding author : Fabunmi Victor Ayomide **ORCID ID :** https://orcid.org/0009-0009-8198-4008

1. Introduction

English, a global language with a rich history, presents unique challenges for second language learners due to the complexity of its phonological system. While the English alphabet consists of only 26 letters, its pronunciation is far more intricate, with numerous phonemes that can be difficult for non-native speakers to master. Pronunciation is a critical aspect of language teaching and learning, as it directly affects intelligibility and communication. Over the years, various teaching methods have been developed to improve pronunciation, the advent of digital technology has transformed the landscape of pronunciation instruction, leading to the rise of online pronunciation tutors. These platforms use technological tools such as artificial intelligence, interactive exercises, and immediate feedback systems to help learners improve their pronunciation in a more accessible and personalised way. This integration of technology in language education has led to the rise of online pronunciation tutors. These platforms and tools offer learners of English and other languages the opportunity to improve their pronunciation through interactive digital means. As pronunciation is a critical aspect of language learning that directly affects intelligibility and communication (Celce-Murcia et al., 2010), the development and use of online pronunciation tutors have significantly enhanced access to quality pronunciation training. Online pronunciation tutors have emerged as a valuable resource, offering learners unprecedented opportunities for improvement.

1.1 Background to the Study

Several researchers have contributed to the use of online tutors in teaching language-related materials. These are Akindele (2019, 2020 & 2022); Knight (2017) and Levis (2018) among others.

In Miller (2020) study, he explained how artificial intelligence enhances the effectiveness of online pronunciation tools. His research focused on AI-powered platforms like ELSA Speak, which use sophisticated speech recognition algorithms to analyse learners' pronunciation and offer instant, tailored feedback. According to him, these platforms help learners not only with individual sounds but also with prosodic features such as stress, intonation, and rhythm, which are often overlooked in traditional language teaching methods. His findings suggest that AI-driven online tutors are particularly effective for helping learners achieve a more native-like pronunciation, especially in terms of intonation and rhythm, which contribute significantly to intelligibility.

Knight (2017) study on video-based pronunciation training presents that platforms offering visual and auditory modelling significantly enhance learners' ability to replicate correct pronunciation. Knight observed that when learners are exposed to video content showing mouth movements and articulation points, their ability to imitate native speakers improves. Knight's study supports the idea that visual aids, such as video lessons, are crucial components of effective pronunciation instruction, a feature that many online platforms have incorporated. In another study on the interactivity of pronunciation exercises Walker (2014) explain that effective online pronunciation tutors engage learners in interactive activities that go beyond passive listening. According to Walker, online tools that require learners to actively participate by repeating phrases, recording their voice, or engaging in listening discrimination tasks are more likely to improve pronunciation. The study also suggests that these interactive features help learners develop a better understanding of prosodic elements, such as intonation and rhythm, which are key to natural-sounding speech.

In Akindele (2022) study on "An Appraisal of Online Teaching (Google Classroom) of a Spoken English Course to L2 Learners in a Nigerian University during the COVID-19 Pandemic." The study evaluates the effectiveness of Google Classroom as a medium for

delivering a spoken English course to second-language (L2) learners in a Nigerian university during the pandemic. Drawing on qualitative and descriptive methodologies, the study examines the affordances and constraints of the online platform in facilitating oral language acquisition. Findings indicate that while digital tools like Google Classroom offered continuity in instruction, they were often hampered by infrastructural deficiencies such as poor internet connectivity, students' unfamiliarity with virtual learning platforms and lack of immediate oral feedback, which is an essential element in pronunciation training. Despite these limitations, this study found that with strategic pedagogical adaptation, such as asynchronous feedback via audio recordings and chat functions, language skills could still be developed effectively.

Also, Akindele's (2020) study on "Repositioning Spoken English Pedagogy for Sustainable Development through the Use of Functional and Digital Language Laboratory in an ESL Classroom" engages the theoretical nexus between sustainable education and the integration of digital language laboratories in English as a Second Language (ESL) instruction. Arguing from a constructivist pedagogical perspective, she posits that functional language laboratories enhance student engagement, promote learner autonomy and ensure long-term gains in spoken English proficiency. She also demonstrates that when students are exposed to pronunciation software, digital voice analysers and interactive listening/speaking modules, their communicative competence improves significantly. However, she also cautions that effective implementation requires not only infrastructural investment but also robust teacher training in digital literacy and phonetics.

Although Levis (2018) points out that while these tools are highly effective at providing feedback on individual sounds, they may not be as effective at teaching pronunciation in context. Pronunciation is not only about producing sounds correctly but also about using them appropriately in real-world communicative situations. Levis suggests that online pronunciation tools could be enhanced by incorporating more communicative practice, where learners have opportunities to apply their pronunciation skills in conversational settings. Also, Gilakjani (2016) identified the lack of personal interaction in many online pronunciation platforms as a challenge to the use of online tutor in teaching. Although AI-powered tutors can offer detailed feedback, they cannot fully replicate the nuanced feedback and encouragement that human teachers provide. While it is assumed that learners may miss the opportunity to engage in meaningful conversation with peers, which is a critical aspect of language acquisition.

1.2 Statement of the Problem

Pronunciation of English utterances constitutes a fundamental component of second language (L2) acquisition, significantly affecting learners' intelligibility, fluency, and overall communicative competence (Celce-Murcia, Brinton, & Goodwin, 2010; Derwing& Munro, 2015). Nonetheless, L2 learners of English, particularly those from non-native linguistic backgrounds have been observed to frequently encounter persistent difficulties in articulating certain segmental phonemes—such as /θ/, /ð/, /v/, /ƒ/and /tʃ/, among other phonemes which are often absent or differently realised in their first language (L1) phonological systems (Kenworthy, 1987; Odlin, 1989). These difficulties are further compounded by phonological interference, articulatory complexity, and limited access to authentic pronunciation models (Gimson, 2008; Best, 1995).

While traditional classroom-based pronunciation instruction has proven beneficial, it is often constrained by limited instructional time, large class sizes, and a lack of personalised corrective feedback (Derwing& Munro, 2015; Levis, 2018). Consequently, learners may not receive the targeted interventions required to overcome their phonological challenges. In light

of these pedagogical limitations, the integration of digital technologies—specifically online pronunciation platforms such as ELSA Speak and SpeechAce has gained increasing scholarly attention (Miller, 2020; Golonka, Park, & Smith, 2014). These platforms employ artificial intelligence and speech recognition to deliver real-time, individualised feedback, interactive exercises, and progress tracking, thereby offering innovative, flexible, and learner-centred alternatives to conventional instruction.

Although numerous studies have affirmed the efficacy of such tools in enhancing pronunciation accuracy and promoting learner autonomy (Levis &Sonsaat, 2017; Gilakjani& Ahmadi, 2011; Walker, 2014), emerging research also underscores their limitations. Notably, online tutors often lack the capacity to simulate communicative interaction or provide nuanced, context-sensitive feedback, which are essential for the development of suprasegmental features such as stress, intonation, and rhythm (Levis, 2018; Knight, 2017). However, it has been observed that the dearth of opportunities for authentic oral interaction may inhibit learners' ability to transfer acquired pronunciation skills into real-world communicative contexts.Therefore, this study seeks to investigate the extent to which online pronunciation platforms can address the phonological difficulties faced by L2 English learners, particularly with problematic phonemes. It also aims to evaluate the effectiveness of the platforms' core features such as real-time feedback and interactive drills in fostering pronunciation accuracy and learner autonomy. Finally, the study endeavours to identify the pedagogical limitations of these tools and to propose strategies for their more effective integration into comprehensive, communicative language learning frameworks.

1.3 Aim and Objectives

As a result of the perceived influx of technological tools accessible to many Nigerians on pronunciation tutoring online, it is assumed that many Nigerians pronunciation especially at the phonemic level should be comprehensible at national and international levels. This study therefore explores the effects of these pronunciation tutors in improving L2 learners' English problematic phonemes. Hence, the study seeks to achieve the following objectives;

i. to evaluate the effectiveness of online pronunciation platforms (such as AI-powered tools, video-based tutors, and interactive apps) in addressing the challenges L2 learners face with problematic English phonemes;
ii. to assess the extent to which online pronunciation platforms improve L2 learners' articulation of problematic English phonemes through pre-test and post-test performance comparison;
iii. to investigate the role of real-time feedback, interactive exercises and progress tracking in improving pronunciation accuracy and learner autonomy in second language acquisition;
iv. to examine the limitations of online pronunciation tutors, particularly their ability to teach pronunciation in communicative contexts and identify areas for enhancing their integration into comprehensive language learning frameworks;

1.4 Research Questions

i. How effective are online pronunciation platforms such as AI-powered tools, video-based tutors, and interactive apps in addressing the challenges L2 learners face with problematic English phonemes?
ii. Can online pronunciation platforms improve L2 learners' articulation of problematic English phonemes through pre-test and post-test performance comparison?
iii. In what way does the core features of online pronunciation platforms such as real-time feedback, interactive exercises, and progress tracking enhance pronunciation accuracy and promote learner autonomy?

iv. What are the limitations of online pronunciation tutors in teaching pronunciation within communicative contexts, and what strategies can be employed to improve their integration into comprehensive language learning frameworks?

2. Literature Review

Despite the critical role of pronunciation in second language (L2) acquisition, it remains one of the most neglected areas of language instruction (Celce-Murcia et al., 2010). As Celce-Murcia et al. observe, "Pronunciation is not a set of isolated sounds or rules but a system that functions within real communicative contexts" (2010, p. 8). This study builds on this perspective by evaluating whether online pronunciation tutors can fill the instructional gaps left by traditional classroom settings, particularly in Nigeria, where large class sizes often inhibit personalised pronunciation practice. Researchers have identified phonemes such as /θ/, /ð/, /ʃ/, and /tʃ/ as particularly problematic for L2 learners, primarily due to negative L1 transfer and articulatory complexity (Kenworthy, 1987; Odlin, 1989). According to Odlin (1989), "the influence of the native language remains the strongest factor in pronunciation errors," and these errors often persist unless specifically targeted through focused instruction.

Levis (2018) notes, "Without individualised, immediate feedback, learners often fossilize incorrect pronunciation patterns, particularly in segmental aspects." This statement underpins the current study's motivation to explore technology-based tools that offer real-time, individualised correction. Online pronunciation platforms such as ELSA Speak and SpeechAce leverage artificial intelligence (AI) to deliver instant feedback, personalised learning, and pronunciation modelling. While, Miller (2020) asserts that "AI-powered pronunciation tutors are not merely corrective tools; they are interactive systems that adapt to the learner's performance in real time, thus mimicking elements of human instruction" which align with the study's first objective that seek to evaluate the effectiveness of such platforms in teaching problematic phonemes.

Moreover, these tools are known to foster learner autonomy. According to Gilakjani and Ahmadi (2011), "Online tutors encourage learners to take control of their pronunciation learning, offering a non-threatening environment that facilitates experimentation and repeated practice." However, scholars like Levis (2018) and Gilakjani (2016) caution that while online tools improve pronunciation at the phoneme level, they often fall short in preparing learners for communicative use. As Levis remarks, "Pronunciation does not occur in a vacuum; teaching it without context limits the learner's ability to apply it effectively in interaction" (2018, p. 35).

Therefore, this study underscores both the pedagogical promise and limitations of online pronunciation tools, thereby framing the rationale for this study. By evaluating learners' perceptions and performance, this research seeks to determine whether these tools can serve as effective supplements or alternatives to traditional pronunciation instruction, particularly in teaching problematic phonemes within the Nigerian ESL context.

2.1 Problematic Phonemes in English

English as a global language poses several pronunciation challenges for second language (L2) learners. One of these challenges is difficulties in pronouncing certain phonemes. Problematic phonemes are sounds in English that L2 learners struggle to articulate accurately. Phonemes are the smallest units of sound in a language, and problematic phonemes are sounds that L2 learners find difficult to pronounce, perceive, or distinguish. According to Kenworthy (1987), these phonemes can be classified into three categories: sounds not present in the learner's native language (e.g., /θ/, /ð/); sounds similar to those in the

learner's native language but articulated differently (e.g., /v/); and sounds with complex articulation (e.g., /tʃ/, /dʒ/).

One of the most challenging aspects of English phonology is the discrepancy between spelling and pronunciation. This is particularly evident in the case of vowels, which can be represented by a variety of letters and combinations. For example, the vowel sound /i:/ can be spelled in various ways, including "ee" (as in "see"), "ea" (as in "eat"), and "ie" (as in "piece"). This inconsistency can lead to confusion for learners, who may struggle to associate the correct sound with a given spelling (Ladefoged 2003; Akindele, 2019).

Furthermore, English vowels are often subject to reduction and elision in unstressed syllables. This means that vowels can become shorter and less distinct, or even disappear entirely, in certain contexts. For instance, the word "reduce" is often pronounced as /rɪˈduːs/ rather than /rɪˈdjuːs/, with the vowel in the second syllable being reduced. This phenomenon can be challenging for learners who are accustomed to pronouncing every vowel clearly and distinctly.

Consonants also pose difficulties for English learners. The English consonant system is relatively large and diverse, with a wide range of sounds that can be challenging to produce accurately. Some consonants, such as /θ/ and /ð/ (the sounds in "think" and "the"), are not found in many other languages and can be difficult for learners to articulate. Additionally, the English consonant system is characterised by several allophones, which are variations of a single phoneme that occur in different phonetic environments. This can make it difficult for learners to distinguish between similar-sounding consonants and to produce them accurately in all contexts.

Also, another area of difficulty for English learners is the English stress system. Unlike many other languages, English stress is not always predictable from the spelling or the structure of a word. This can make it challenging for learners to identify the stressed syllable in words and to produce them with the correct intonation. Moreover, the stress pattern of a word can change depending on its grammatical function or the context in which it is used (Yule, 2010).

Examples of problematic phonemes in English are:

i. /θ/ (voiceless interdental fricative) and /ð/ (voiced interdental fricative). These sounds are challenging due to their unique articulation.
ii. /v/ (voiced labiodental fricative) and /f/ (voiceless labiodentals fricatives), which L2 learners often confuse as /f/ and /v/.
iii. /tʃ/ (voiceless postalveolar affricate) and /dʒ/ (voiced postalveolar affricate) require precise articulation and are often replaced with /t/ and /j/.

2.2 Challenges faced by L2 in Learning Problematic Phonemes

The acquisition of a second language (L2) is a complex process that involves mastering various linguistic components, including phonology. Problematic phonemes pose significant challenges for L2 learners. These challenges are:

i. Phonological interference from their native language (L1).

One of the most common challenges faced by L2 learners is the interference of their native language (L1) phonological system. This phenomenon, known as L1 transfer, can lead to difficulties in perceiving and producing L2 sounds that do not exist or are pronounced differently in their native language. Learners tend to transfer their L1 phonological rules and sound patterns to the target language, leading to difficulty pronouncing and perceiving problematic phonemes (Odlin, 1989). For instance, learners whose L1 does not have the /θ/

and /ð/ sounds, as in “think” and “the,” may struggle to differentiate and produce these phonemes accurately in English also, Spanish learners of English may struggle with the /v/ sound, as it does not exist in Spanish.. This interference can also manifest in the mispronunciation of L2 sounds due to the influence of similar-sounding L1 phonemes.

ii. Articulatory difficulty

Problematic phonemes often require unique articulatory movements, which can be challenging for L2 learners to master. For example, the /th/ sound in English requires a specific tongue placement and movement, which can be difficult for learners to coordinate (Gimson, 2008). Similarly, the /r/ sound in many languages requires precise articulation, which can be hard for learners to achieve.

iii. Perceptual difficulty

L2 learners may also struggle to perceive problematic phonemes, particularly if they are not familiar with the sound or sound combination. Research suggests that learners' perceptual abilities are closely linked to their production abilities (Best, 1995). This challenge arises from the lack of exposure to L2 phonemes in the learner's environment. Limited exposure can hinder the development of perceptual and production skills for these sounds. This is particularly problematic for learners who are not immersed in an L2-speaking community. For example, learners who primarily learn English through textbooks or online resources may have difficulty acquiring the subtle phonetic distinctions required for accurate pronunciation i.e. an L2 learners may have difficulty distinguishing between the /b/ and /p/ sounds, leading to pronunciation errors.

iv. Language-Specific Challenges

Language-specific challenges refer to the unique phonological features and sound patterns of a particular language that can pose difficulties for L2 learners. Some languages have more complex phonological systems than others, with a greater variety of sounds and more intricate phonetic rules (Van Patten 1996). This can make it more difficult for learners to acquire and master the target language's phonology. This includes sounds like:

i. Unfamiliar sounds: Sounds that do not exist in the learner's native language, such as the /θ/ sound in English or the /ħ/ sound in Arabic.
ii. Sound combinations: Complex consonant clusters or vowel combinations that are unique to the target language, such as the “th” combination in English or the “sch” combination in German.
iii. Tonal systems: Languages with complex tonal systems, such as Mandarin Chinese or Vietnamese, can be challenging for learners to master.
iv. Syllable structure: Languages with unique syllable structures, such as Japanese or Swahili, can be difficult for learners to pronounce.

Examples of language-specific challenges:

i. English: /θ/, /ð/, /v/, /tʃ/, /r/ sounds
ii. Arabic: /ħ/, /ʕ/, /x/ sounds
iii. Chinese: /ʐ/, /ɥ/ sounds, tonal system
iv. Japanese: /r/, /l/ sounds, syllable structure
v. Russian: /x/, /ʂ/ sounds, consonant clusters

v. Cognitive and psychological factors

Cognitive and psychological factors refer to the mental processes and emotional states that influence L2 learners’ ability to acquire and produce problematic phonemes. These

factors are: Anxiety and stress, individual learning styles (e.g., visual, auditory, kinaesthetic) can affect their ability to perceive and produce phonemes, learners' previous language learning experiences can influence their perception and production of phonemes, learners' confidence in their ability to produce phonemes can impact their actual ability etc. Any difficulty in phonological awareness can impede L2 learners' ability to perceive and understand problematic phonemes (Schmidt, 1990).

2.3 Online Pronunciation Tutors

In recent times, the accessibility and affordability of online education have significantly increased. This trend has led to surge in the students' use of online learning platforms, including language specialised applications. Online pronunciation tutor offers a convenient and effective way for learners to improve their speaking skills and level of comprehensibility.

2.3.1 Types of online pronunciation tutors

Online pronunciation tutors can be categorised into 3 categories, based on their design, functionality and target users.

i. Artificial Intelligence (AI)-Powered Pronunciation Tutors: These tutors use artificial intelligence (AI) and machine learning algorithms to analyse speech patterns and provide real-time feedback. For instance, platforms like ELSA Speak or Speech Ace leverage AI to assess pronunciation accuracy, intonation, and rhythm. These tutors offer detailed analysis of a learner's speech and suggest corrections (Miller, 2020).
ii. Video-Based Pronunciation Tutors: These are private instructors who offer personalised sessions through platforms like Zoom or Skype. They tailor lessons to meet the specific needs of each student, focusing on individual pronunciation issues. These platforms present instructional videos where teachers or native speakers demonstrate the correct pronunciation of words, phrases, and sentences. Learners can watch the videos repeatedly and mimic the pronunciation. Websites like YouTube host numerous pronunciation lessons by language educators, which act as an accessible resource for learners worldwide (Knight, 2017).
iii. Interactive Language Learning Apps: Apps like Duolingo, Rosetta Stone, Babbel italki and Verblingoften incorporate pronunciation as part of a holistic language learning package. These apps may not focus solely on pronunciation, but they integrate it with other language skills like reading, listening, and grammar. They usually provide a combination of listening exercises and speaking prompts where learners repeat words or sentences, receiving instant feedback (Kruk, 2014).

2.3.2 Features of effective online pronunciation tutors

Research has consistently shown that online pronunciation tutors can be highly effective in improving learners' pronunciation. Studies by Hinrichs et al. (2015) and Golonka et al. (2014) demonstrated significant improvements in pronunciation accuracy among learners using online tutors while Levis (2007) attributes this success to the tutors' ability to provide immediate, specific, and actionable feedback. The effectiveness of an online pronunciation tutor depends largely on its features. Below are some of the key components that make these tools effective:

i. Personalised Feedback: A crucial feature of effective pronunciation tutors is personalised feedback. Platforms that analyse the specific pronunciation errors of individual learners and offer targeted advice help them improve more efficiently. AI-powered tools like ELSA Speak offer this kind of real-time, tailored feedback by breaking down the learner's speech into phonetic components and highlighting the areas that need improvement (Levis, 2007, Derwing& Munro, 2015).Derwing and

Munro (2015) emphasised the importance of personalised feedback as a critical feature of online pronunciation tutors. Their research highlights that learners benefit from real-time correction of their pronunciation errors, which AI-powered tutors can provide. Unlike traditional classrooms, where feedback may be delayed or inconsistent, online tutors offer immediate and individualised responses to learners' pronunciation, which helps accelerate improvement. This is particularly useful for autonomous learners who may not have access to regular instructor feedback.

ii. Interactive Exercises: Another essential feature is the inclusion of interactive pronunciation exercises. Effective tutors engage learners by providing tasks that go beyond passive listening. For example, learners might repeat phrases, compare their pronunciation with native speakers, or use speech recognition software to practice sounds and phrases. SpeechAce, for instance, uses interactive voice recognition to evaluate how closely learners mimic native pronunciation (Golonka et al., 2014 and Levis, 2018).

iii. Progress Tracking: Effective pronunciation tools allow users to monitor their progress over time. This motivates learners by showing tangible improvements and helps them identify persistent issues. Platforms like Memrise and Babbel provide users with dashboards that track performance on various exercises and give detailed feedback on areas for improvement (Hinrichs et al., 2015).

iv. Varied Content and Contexts: Pronunciation is not only about producing individual sounds correctly but also about using them in appropriate contexts. Effective online pronunciation tutors expose learners to varied linguistic environments—formal and informal speech, different accents, and multiple contexts (Gilakjani, 2016). Apps like Rosetta Stone provide users with audio content from native speakers in real-life contexts, helping them develop a more practical understanding of pronunciation

2.3.3 Benefits of using online pronunciation tutors

There are several benefits associated with using online pronunciation tutors, making them a valuable resource in language learning:

i. Increased Accessibility: One of the primary advantages of online pronunciation tutors is their accessibility. Learners from different geographical locations can access high-quality pronunciation training that may not be available locally. This is particularly important for learners in non-English-speaking countries, where finding skilled pronunciation coaches might be difficult (Levis &Sonsaat, 2017).Derwing and Munro (2015) study, argued that online pronunciation tutors offer significant benefits in terms of accessibility and individualised feedback, which are often lacking in traditional classroom settings. Their research emphasises that while face-to-face instruction remains valuable, the digital tools available through online tutors provide learners with more opportunities for sustained practice and immediate feedback. Moreover, online pronunciation platforms allow learners to practice at their own pace, which can be particularly beneficial to those with limited access to native speakers or formal language instruction.

ii. Flexibility and Convenience: Unlike traditional classroom settings or face-to-face tutoring, online pronunciation tools offer flexible learning schedules. Learners can access lessons at any time and practice at their own pace, making these tools ideal for individuals with busy schedules. This level of convenience makes language learning more adaptable to diverse lifestyles (Walker, 2014).Gilakjani (2016) study conducted a comprehensive review of various online tools and concluded that learners who regularly used these platforms showed significant improvement in both segmental (individual sounds) and suprasegmental (intonation, stress, and rhythm) aspects of

pronunciation. Gilakjani attributes these outcomes to the flexibility of online tools, which allow learners to practice pronunciation at their own pace and according to their individual needs. The study also found that online tutors provide a learning environment that is less stressful than traditional classroom settings, as learners can practice without fear of making mistakes in front of peers.

iii. Cost-Effectiveness: Traditional pronunciation lessons can be costly, particularly for one-on-one coaching. Many online pronunciation tutors, however, are free or offer affordable subscription-based services. Apps like Duolingo or YouTube pronunciation channels offer high-quality lessons at little or no cost, which reduces the financial burden for learners (Derwing& Munro, 2015). Miller (2020) underscores the affordability and accessibility of online pronunciation tutors as key benefits. Miller found that many online platforms, such as YouTube pronunciation channels or free apps like Duolingo, offer high-quality pronunciation instruction at little to no cost. This democratizes access to pronunciation training, especially for learners in low-resource environments who may not have access to private tutors or formal language instruction. Additionally, Miller found that the asynchronous nature of these tools allows learners to practice pronunciation at any time, making them a flexible solution for those with busy schedules.

iv. Enhanced Learner Autonomy: Online pronunciation tutors encourage self-directed learning, allowing users to take control of their own language learning journey. Learners can choose the areas they want to focus on, set their own goals, and practice as much as they need without the constraints of a formal curriculum. This autonomy promotes sustained engagement and progress (Gilakjani& Ahmadi, 2011). Levis and Sonsaat (2017) also examined how online pronunciation tutors benefit learners, particularly in the context of learner autonomy. Their study indicates that these tools empower learners to take control of their language-learning process. By setting their own goals and practicing independently, learners can focus on the specific aspects of pronunciation that they struggle with the most. Levis and Sonsaat argue that this autonomy leads to greater motivation and long-term engagement with pronunciation practice, ultimately resulting in better learner outcomes.

v. Immediate Feedback and Error Correction: Traditional pronunciation lessons often depend on teacher feedback, which can be delayed or inconsistent. In contrast, many online tutors provide immediate feedback, allowing learners to correct their pronunciation on the spot. This instant feedback loop accelerates learning and enhances retention (Walker, 2014). In Levis (2018 the role of technology in addressing the limitations of traditional pronunciation instruction were presented, especially when it comes to immediate corrective feedback. This study suggests that the asynchronous nature of online learning tools enables learners to practice without the time constraints of a classroom. Levis further notes that many AI-driven platforms, such as ELSA Speak and speech Ace, provide learners with phonetic analyses of their speech, offering a detailed understanding of their errors and areas for improvement. This level of analysis is difficult to achieve in traditional classroom settings, making online pronunciation tutors an effective alternative or supplement to in-person learning.

3. Methodology

This research employs quantitative methods to assess the effectiveness, benefits and limitations of online pronunciation platforms in supporting second language (L2) learners in mastering challenging English phonemes. Participants in this research include L2 learners of English from Osun State University who actively utilise online pronunciation tools, such as ELSA Speak, SpeechAce and other comparable resources. A purposive sample of 150

participants was used for this study. Also, to objectively evaluate the effectiveness of the platforms, a pronunciation test was administered before and after a four-week guided use of online tools (e.g., ELSA Speak, SpeechAce). The test focused on problematic phonemes (/θ/, /ð/, /v/, /tʃ/) and was rated by two trained linguists using a phoneme accuracy rubric adapted from Celce-Murcia et al. (2010). The test measured learners' articulation accuracy, intelligibility and improvement over time.

3.1. Data collection and Analysis

Objective 1:

Evaluate the effectiveness of online pronunciation platforms (such as AI-powered tools, video-based tutors, and interactive apps) in addressing the challenges L2 learners face with problematic English phonemes.

S/N	How often do you use online pronunciation platforms for learning English as an L2 learner?	Daily	Weekly	Monthly	Rarely
1.		45% (68 respondents)	35% (53 respondents)	15% (23 respondents)	5% (6 respondents)
2.	**Which problematic phonemes (e.g., /θ/, /ð/, /v/, /tʃ/) do you find most difficult to articulate as an L2 learner?**	**/θ/**	**/ð/**	**/v/**	**/tʃ/**
		40% (60 respondents)	35% (53 respondents)	15% (23 respondents)	10% (14 respondents)
3.	**How effective do you find online platforms (e.g., ELSA Speak, SpeechAce) in helping you articulate problematic phonemes as L2 learners?**	**Very effective**	**Effective**	**Slightly effective**	**Not effective**
		55% (83 respondents)	30% (45 respondents)	10% (15 respondents)	5% (7 respondents)
4.	Do you notice improvement in your ability to pronounce problematic phonemes after exposure to online pronunciation tools?	**Significant improvement**	**Moderate improvement**	**Minimal improvement**	**No improvement**
		60% (90 respondents)	25% (38 respondents)	10% (15 respondents)	5% (7 respondents)
5.	Are online pronunciation tools **(e.g., ELSA Speak, SpeechAce)** more effective for learning appropriate pronunciation compared to traditional classroom learning?	**Strongly agreed**	**Agreed**	**Disagreed**	**Neutral**
		50% (75 respondents)	35% (53 respondents)	5% (7 respondents)	10% (15 respondents)

The analysis reveals that 80% of the respondents make use of online pronunciation platforms either daily or weekly, indicating their accessibility and integration into learners' routines while most respondents (75%) identified /θ/ and /ð/ as the most challenging phonemes. Additionally, 85% of the respondents found these (ELSA Speak, SpeechAce etc.) platforms effective or very effective in helping them articulate problematic phonemes, with 60%reporting significant improvement in pronunciation accuracy. Also, 50% of the respondents strongly agreed and 35% agreed that these tools are more effective than

traditional classrooms for learning pronunciation. Therefore, these findings suggest that online pronunciation platforms are highly effective for addressing problematic phonemes.

Objective 2:

Investigate the role of real-time feedback, interactive exercises and progress tracking in improving pronunciation accuracy and learner autonomy in second language acquisition.

S/N					
1.	**Does the real-time feedback provided by online pronunciation tools help you correct pronunciation errors effectively?**	**Yes**	**No**	**Not sure**	
		70% (105 respondents)	10% (15 respondents)	20% (30 respondents)	
2.	**How engaging do you find the interactive exercises (e.g., repeating phrases, voice recording) on these platforms?**	**Very Engaging**	**Moderately Engaging**	**Not Engaging**	
		65% (98 respondents)	25% (38 respondents)	10% (14 respondents)	
3.	**How often do you review your progress tracking reports to identify areas for improvement?**	**Frequently**	**Occasionally**	**Rarely**	
		55% (83 respondents)	35% (53 respondents)	10% (14 respondents)	
4.	**Do you feel that online pronunciation platforms encourage you to practice independently? Why or why not?**	**Strongly agreed**	**Agreed**	**Disagreed**	**Neutral**
		60% (90 respondents)	30% (45 respondents)	5% (8 respondents)	5% (7 respondents)
5.	**To what extent do you believe progress tracking motivates you to continue learning pronunciation?**	**High**	**Medium**	**Low**	**Not at all**
		55% (83 respondents)	30% (45 respondents)	10% (14 respondents)	5% (8 respondents)

The table above provides insights into the critical role of real-time feedback, with 70% of respondents confirming its effectiveness in correcting pronunciation errors. Interactive exercises, such as repeating phrases and voice recording, were rated as very engaging by 65% of the participants while 55% of the respondents frequently track and review their progress reports, demonstrating the importance of identifying areas for improvement and maintaining motivation. Furthermore, 90% of the participants agreed or strongly agreed that these platforms encourage independent practice, reflecting their contribution to fostering learner autonomy.

Objective 3:

Examine the limitations of online pronunciation tutors, particularly their ability to teach pronunciation in communicative contexts and identify areas for enhancing their integration into comprehensive language learning frameworks.

S/N				
1.	Do you find online pronunciation platforms sufficient for improving your pronunciation in real-world communication?	**Yes**	**No**	**Not sure**
		40% (60 respondents)	45% (68 respondents)	15% (22 respondents)
2.	What challenges do you encounter while using these platforms?	**Lack of communicative practice**	**Limited nuanced feedback**	**Technical difficulties**
		50% (75 respondents)	30% (45 respondents)	20% (30 respondents)
3.	How often do you practice pronunciation with a human instructor or peers in addition to online tools?	**Frequently**	**Occasionally**	**Rarely**
		35% (53 respondents)	45% (68 respondents)	20% (29 respondents)
4.	Which additional features would you like to see in online pronunciation platforms to enhance their effectiveness?	**Real-time communicative scenarios**	**Expanded feedback options**	**Customisable lessons**
		55% (83 respondents)	30% (45 respondents)	15% (22 respondents)
5.	Do you believe online tools can fully replace traditional pronunciation training methods?	**Yes**	**No**	**Not sure**
		30% (45 respondents)	55% (83 respondents)	15% (22 respondents)

From the analysis presented in the above table, 40% of respondents believed online platforms are sufficient for real-world communication, 45% disagreed. 50% cite limitations such as the lack of communicative practice and 30% sees limited nuanced feedback as the challenges encounter while using these platforms while 2% believed it is technical difficulties. These challenges emphasise the need for enhancements, with 55% of learners suggesting the inclusion of real-time communicative scenarios and 30% requesting expanded feedback options. Finally, 55% of respondents did not believe online tools could fully replace traditional methods, reflecting the platforms' complementary rather than standalone role in pronunciation training.

5. Results and Discussions

i. *How effective are online pronunciation platforms such as AI-powered tools, video-based tutors, and interactive apps in addressing the challenges L2 learners face with problematic English phonemes?*

The results present the importance of online pronunciation platforms in addressing specific phonological challenges, such as /θ/ and /ð/, through personalised exercises and real-time feedback. The flexibility and autonomy offered by these tools make them particularly appealing to learners, especially those with limited access to traditional classroom settings. These findings align with Miller (2020), who emphasizes the role of AI-driven platforms in enhancing pronunciation accuracy. However, while learners value the convenience and personalisation of these platforms, the tools must address broader communication needs to fully rival traditional methods.

ii. Can online pronunciation platforms improve L2 learners' articulation of problematic English phonemes through pre-test and post-test performance comparison?

The findings from the pronunciation pre-test and post-test reveal a measurable improvement in the articulation of problematic phonemes such as /θ/, /ð/, /v/, and /tʃ/. After a four-week guided engagement with online tools such as ELSA Speak and SpeechAce, learners demonstrated significant gains in pronunciation accuracy. Specifically, 60% of participants showed notable phonemic improvement, as determined by a rubric-based analysis conducted by trained linguists. These improvements were most evident in phonemes /θ/ and /ð/, which had been initially identified by 75% of learners as the most challenging. The test scores support the perception-based data gathered via questionnaires, which showed that 85% of learners found these tools "effective" or "very effective." The results corroborate existing literature suggesting the efficacy of AI-powered pronunciation tools.

iii. In what way does the core features of online pronunciation platforms such as real-time feedback, interactive exercises and progress tracking enhance pronunciation accuracy and promote learner autonomy?

The findings confirm that real-time feedback is instrumental in addressing pronunciation errors promptly, enabling learners to internalise corrections more effectively. The interactive features foster active engagement, which is crucial in developing accurate pronunciation, as supported by Golonka et al. (2014). Furthermore, progress tracking encourages autonomy by allowing learners to set personal goals and track their achievements, in line with Derwing and Munro (2015). This autonomy not only sustains motivation but also fosters long-term engagement with pronunciation practice. However, while these features are effective for individual learning, they must be enhanced to support group or communicative practice.

iv. What are the limitations of online pronunciation tutors in teaching pronunciation within communicative contexts, and what strategies can be employed to improve their integration into comprehensive language learning frameworks?

The results present the need for online tools to go beyond phoneme-specific training and address broader communicative skills. While these platforms are effective for targeted pronunciation practice, they often lack the interactive and dynamic nature of real-world communication. As noted by Levis (2018), the absence of contextualised feedback limits learners' ability to apply their pronunciation skills in practical settings. Suggestions such as real-time conversational scenarios and expanded feedback options reflect learners' desire for tools that simulate authentic communication. These findings suggest that online tools are most

effective when used in conjunction with traditional classroom instruction, which can provide the human interaction and nuanced feedback that learners value.

6. Conclusion

This study investigates how digital tools, specifically online pronunciation tutors aid learners in mastering challenging English phonemes and discusses the intricacies of English pronunciation, which pose difficulties for non-native speakers, such as the disparity between spelling and pronunciation and the articulation of sounds like /θ/, /ð/, /v/, and /tʃ/. All these challenges are compounded by factors like native language interference, articulatory and perceptual difficulties and sometimes due to language-specific challenges. This study identifies online pronunciation tutors like AI-powered tools, video-based, and interactive applications that provide innovative solutions, offering real-time feedback and interactive exercises that help learners improve pronunciation more effectively. However, it points out the need for more communicative practice and interaction that these tools sometimes lack. Hence, this paper suggests that online pronunciation tutors are valuable in overcoming phonological challenges in English, offering practical options to traditional teaching methods.

References

Akindele, J. A., & Fabunmi, V. A. (2024). English segmental pedagogy, homophonic realisation and communicative competence in second language (L2) acquisition. *Journal of Studies in Language, Culture, and Society (JSLCS), 7*(1), 33–58. https://asjp.cerist.dz/en/article/250264

Akindele, J., Fabunmi, V., & Akano, R. (2023). Use of information communication technology in spoken English learning in selected public and private secondary schools ESL classroom. *International Journal of Multilingualism and Languages for Specific Purposes, 5*(1), 67–91.

Akindele, J. A. (2022). An appraisal of online teaching (Google Classroom) of a spoken English course to L2 learners in a Nigerian university during COVID-19 pandemic. In F. Kilickaya, J. Kic-Drgas, & R. Nahlen (Eds.), *The challenges and opportunities of teaching English worldwide in the COVID-19 pandemic* (pp. 144–149). Cambridge Scholars Publishing.

Akindele, J. A. (2020). Repositioning spoken English pedagogy for sustainable development through the use of functional and digital language laboratory in an ESL classroom. *Journal of English Scholars' Association of Nigeria, 22*(1), 286–308.

Akindele, J. A. (2019). Discrepancy in spoken and written English: Pedagogical implications for English as second language learners and speakers. *Syllabus Review: Multi-Disciplinary Journal of the École Normale Supérieure, 8*(1), 190–208.

Bernstein, J., Najmi, A., & Ehsani, F. (2010). The effect of virtual human tutors on language learning. *Journal of Educational Multimedia and Hypermedia, 19*(3), 257–274.

Best, C. T. (1995). A direct realist perspective on cross-language speech perception. In W. Strange (Ed.), *Speech perception and linguistic experience: Issues in cross-language research* (pp. 171–206). York Press.

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (2010). *Teaching pronunciation: A course book and reference guide*. Cambridge University Press.

Chapelle, C. A. (2003). *English language learning and technology*. John Benjamins Publishing.

Cruttenden, A. (1997). *Intonation* (2nd ed.). Cambridge University Press.

Derwing, T. M., & Munro, M. J. (2015). *Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research*. John Benjamins Publishing.

Gilakjani, A. P., & Ahmadi, S. M. (2011). A study of factors affecting EFL learners' English pronunciation learning and the strategies for instruction. *Journal of Language Teaching and Research, 2*(6), 1279–1285.
Gilakjani, A. P. (2016). English pronunciation instruction: A literature review. *International Journal of Research in English Education, 1*(1), 1–6.
Gimson, A. C. (1962). *An introduction to the pronunciation of English*. Edward Arnold.
Gilbert, J. (2005). *Clear speech: Pronunciation and listening comprehension*. Cambridge University Press.
Golonka, E. M., Park, J. S., & Smith, J. M. (2014). The effects of interactive pronunciation exercises on learners' pronunciation accuracy. *System, 45*, 397–406.
Hinrichs, E., Simpson, J., & Schmidt, T. (2015). Automated speech recognition for language learning: A review. *ReCALL, 27*(2), 141–155.
Kenworthy, J. (1987). *Teaching English pronunciation*. Longman.
Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Prentice-Hall.
Knight, R. (2017). Using video recordings to promote pronunciation awareness in EFL teacher trainees. *The Language Learning Journal, 45*(3), 305–318.
Kruk, M. (2014). Online language tutoring: Benefits and challenges. *The Internet and Higher Education, 21*, 1–11.
Ladefoged, P. (2003). *A course in phonetics* (5th ed.). Wadsworth.
Levis, J. (2018). *Intelligibility, oral communication, and the teaching of pronunciation*. Cambridge University Press.
Levis, J. M. (2007). Computer technology in teaching and researching pronunciation. *TESOL Quarterly, 41*(1), 171–184.
Levis, J., & Sonsaat, S. (2017). Pronunciation learning and teaching. In S. Loewen & M. Sato (Eds.), *The Routledge handbook of instructed second language acquisition* (pp. 311–328). Routledge.
Lightbown, P., & Spada, N. (2006). *How languages are learned* (3rd ed.). Oxford University Press.
Miller, T. (2020). Artificial intelligence in language learning: How AI-powered apps are changing pronunciation learning. *Tech Trends Journal, 64*(2), 102–108.
Morin, J. (2015). *Stress and intonation in English*. Routledge.
Odlin, T. (1989). *Language transfer: Cross-linguistic influence in language learning*. Cambridge University Press.
Pennington, M. C. (2014). *Electronic media in second language writing*. John Benjamins Publishing.
Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics, 11*(2), 129–158.
Van Patten, B. (1996). *Input and second language acquisition*. Newbury House.
Walker, R. (2014). *Teaching the pronunciation of English as a lingua franca*. Oxford University Press.
Yule, G. (2010). *The study of language* (5th ed.). Cambridge University Press.