

Integrating AI-Powered Pronunciation Tools to Enhance Speaking Proficiency in EFL Learners

Hotamova Iroda Ibrohimovna,

PhD researcher at Navoi State University

Email: Xatamova@nspi.uz

ORCID ID: [0009-0003-7103-0266](https://orcid.org/0009-0003-7103-0266)

ANNOTATION: This article investigates how AI-powered mobile applications such as ELSA Speak and Speechace can support the development of speaking skills among EFL learners. By employing Audio-Articulatory and Pronunciation-Based Approaches, these tools offer real-time, personalized feedback on pronunciation, fluency, and stress patterns. The study emphasizes the effectiveness of integrating multiple AI platforms into the learning process to meet diverse learner needs and improve communicative competence.

Keywords: ELSA Speak, Speechace, pronunciation, artificial intelligence in education, EFL learners, formative assessment

Аннотация: В статье рассматривается использование мобильных приложений с ИИ, таких как ELSA Speak и Speechace, для развития разговорных навыков у изучающих английский язык как иностранный. Используя аудио-артикуляторный и произносительный подходы, эти инструменты обеспечивают персонализированную обратную связь в режиме реального времени по вопросам произношения, беглости и интонации. В исследовании подчеркивается эффективность интеграции нескольких платформ ИИ для удовлетворения различных потребностей учащихся.

Ключевые слова: ELSA Speak, Speechace, произношение, искусственный интеллект в образовании, изучающие английский язык, формативное оценивание

Annotatsiya: Ushbu maqolada ELSA Speak va Speechace kabi sun'iy intellektga asoslangan mobil ilovalar ingliz tilini chet tili sifatida o'rganayotgan talabalar nutq ko'nikmalarini rivojlantirishdagi o'rni yoritiladi. Audio-artikulyatsion va talaffuzga asoslangan yondashuvlar orqali bu ilovalar real vaqt rejimida individual fikr-mulohaza berib, talaffuz, urg'u va intonatsiya ustida ishlashga yordam beradi. Tadqiqotda turli ehtiyojlarni qamrab olgan holda bir nechta AI platformalarini integratsiyalash samaradorligi ko'rsatib o'tilgan.

Kalit so'zlar: ELSA Speak, Speechace, talaffuz, ta'limda sun'iy intellekt, EFL o'quvchilari, formativ baholash

Introduction The advancement of artificial intelligence has introduced a new dimension to language education. In particular, the integration of AI-powered mobile applications has opened up innovative possibilities for improving pronunciation, fluency, and speech accuracy in English as a Foreign Language (EFL) contexts. ELSA Speak and Speechace represent two leading platforms in this field. These tools, grounded in pedagogical principles such as the Audio-Articulatory Method and Pronunciation-Based Approach, offer individualized and immediate feedback, facilitating autonomous learning and confidence in spoken English.

Methodology The study was conducted with a sample of 40 second-year undergraduate EFL students. Over a six-week period, participants used ELSA Speak and Speechace applications in both classroom and extracurricular settings. Students practiced targeted pronunciation features such as vowel sounds, consonant clusters,

stress, and intonation. Formative assessment strategies were integrated throughout the study to support self-evaluation and learning reflection.

Results Student performance was evaluated using pre- and post-application oral tasks assessed through rubrics focused on pronunciation, fluency, and intelligibility. The table below summarizes the improvement rates in selected indicators. (table 1)

Average Improvement Results Based on AI Tool Usage

Table 1

Indicator	ELSA Speak (%)	Speechace (%)
Pronunciation	38%	35%
Stress & Intonation	42%	37%
Fluency	30%	33%
Vocabulary Usage	25%	29%

Students expressed increased motivation and confidence while using both applications. ELSA Speak provided corrective articulation cues, while Speechace offered comprehensive scoring and immediate feedback aligned with formative assessment (AfL) principles.

Discussion The combination of ELSA Speak and Speechace supports a multidimensional approach to pronunciation training. ELSA Speak, by offering real-time articulation correction, enhances awareness of phonetic detail. Speechace, with its quantitative feedback and visualized progress, promotes student self-monitoring and formative assessment. Integrating multiple AI tools caters to various learner preferences and learning styles, ensuring inclusivity and personalization.

This hybrid model aligns with current communicative competence theories that advocate for integrated, reflective, and learner-centered practices. Furthermore, the

study confirms that AI-enhanced applications can extend the learning environment beyond the classroom, making language practice more accessible and engaging.

Conclusion The findings indicate that ELSA Speak and Speechace significantly contribute to improving the speaking proficiency of EFL learners. These applications, when aligned with reflective teaching practices and assessment for learning (AfL), enhance pronunciation, fluency, and learner autonomy. Educators are encouraged to incorporate a variety of AI tools to create adaptive and effective learning ecosystems.

References:

1. Kılıçkaya, F. (2020). Using a chatbot, Replika, to practice writing through conversations in L2 English. IGI Global.
2. Neri, A., Cucchiarini, C., & Strik, H. (2006). ASR-based corrective feedback in computer assisted pronunciation training. *Speech Communication*, 51(10), 853–863.
3. Thomson, R. I. (2011). Computer-assisted pronunciation training: Targeting second language vowel perception. *CALICO Journal*, 28(3), 744–765.
4. Hincks, R. (2003). Speech technologies for pronunciation feedback and evaluation. *ReCALL*, 15(1), 3–20.
5. Derwing, T. M., & Munro, M. J. (2015). *Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research*. John Benjamins.
6. Levis, J. M. (2005). Changing contexts and shifting paradigms in pronunciation teaching. *TESOL Quarterly*, 39(3), 369–377.
6. Celce-Murcia, M., Brinton, D., & Goodwin, J. (2010). *Teaching pronunciation: A course book and reference guide*. Cambridge University Press.

7. Tanner, M. W., & Landon, M. M. (2009). The effects of computer-assisted pronunciation training on ESL learners' use of segmental and suprasegmental features. *The Modern Language Journal*, 93(3), 491–504.

8. Speechace. (2024). AI-based English language speech assessment platform. <https://speechace.com> 10. ELSA Speak. (2024). English Language Speech Assistant. <https://elsaspeak.com>