

College of Education for Humanities

English Department



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Methods of Research

“AI in Education”

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1. Introduction

Artificial Intelligence (AI) is becoming an important part of our daily lives. It helps people in many areas such as health, business, and education. In the field of English as a Foreign Language (EFL) education, AI offers new tools that can support both teachers and students. These tools can make learning easier, faster, and more enjoyable. For example, AI can correct students' mistakes, suggest better words, or even talk with them to improve their speaking. This introduction will explore how AI is starting to change the way English is taught and learned, and how it may shape the future of EFL.

2. Definition of Artificial Intelligence (AI)

Artificial Intelligence (AI) is the ability of machines and computer programs to imitate human intelligence. AI systems can learn from data, understand language, make decisions, and solve problems.

Example: When you use Google Translate and it improves over time based on your corrections—that is AI in action. In education, AI is used to create intelligent systems that adapt to student needs, provide feedback, and even hold conversations.

3. Historical Background and Evolution

The use of technology in language learning began with simple tools like CD-ROMs and grammar software. Over time, it developed into Computer-Assisted Language Learning (CALL), and now into intelligent platforms powered by AI.

Example: In the 1990s, students practiced vocabulary on desktop programs; today, apps like ELSA Speak use AI to give instant pronunciation feedback. Current Applications of AI in EFL Education AI is used in many tools and platforms to support EFL learners in practical and interactive ways. These tools go beyond traditional

teaching methods by offering real-time support, engagement, and personalization

1. Language Learning Apps: Duo lingo uses AI to adapt quizzes based on your answers. For example, if a student often struggles with prepositions, the app will repeat and reframe those items more frequently to reinforce learning .
2. Chabot's: Apps like Replika or Catgut simulate conversations with learners. This gives students a chance to practice English in a stress-free environment, similar to speaking with a patient and helpful partner .
3. Writing Tools: Grammar checks grammar and suggests better word choices. It also explains why a correction is needed, which helps learners improve over time .
4. Pronunciation Practice: ELSA Speak helps learners correct their spoken English by detecting subtle pronunciation errors and offering targeted feedback. This is especially useful for self-learners without access to native speakers .
5. Personalized Learning: Lingvist adjusts vocabulary lessons based on what learners struggle with. If a student forgets certain words, the system reviews them more often, helping retention through repetition .

Example: A student who finds past tense verbs difficult will get more exercises on that topic automatically. This ensures targeted and efficient learning .

4 . Pedagogical Implications

AI changes how we teach and how students learn, influencing classroom strategies, lesson design, and student engagement .

1. Adaptive Learning: Lessons adjust to each learner's pace and performance. For instance, a beginner may receive more explanations, while advanced students move forward quickly .
2. Intelligent Tutoring Systems (ITS): Like a digital tutor offering hints and explanations, ITS platforms such as Carnegie Learning guide students through difficult concepts by offering step- by step feedback.

3 . Engagement: Gamified features like rewards and levels motivate students. These elements make learning fun and keep students interested for longer periods, especially younger or less motivated learners .

4. Teacher Support: AI can suggest learning materials based on student progress. Teachers receive data on student errors and can plan lessons that directly target these weaknesses. Example: A teacher can receive a weekly report showing which grammar topics each student needs more help with, making instruction more precise and effective.

5 . Benefits of AI in EFL Education

AI brings several advantages that improve access, efficiency, and learner satisfaction in EFL education.

- Accessibility: Students can learn anytime using mobile devices. Learning is no longer limited to the classroom; students can study during commutes or at home .

- Immediate Feedback: Learners correct mistakes right away. This instant correction helps prevent fossilization of errors and reinforces correct usage .

- Inclusivity: AI supports learners with different needs or

disabilities by offering speech-to-text, translation, or visual aids. These tools make learning more equitable .

- Learner Autonomy: Students manage their own learning path. They can choose what, when, and how they want to study, which increases motivation and responsibility

Example: A student in a remote village can use a language app without needing a teacher nearby. With only a smartphone, they can access high-quality instruction.

6 . Challenges and Limitations

There are important issues to consider when using AI in EFL education, including ethical, technical, and practical concerns.

1. Privacy Concerns: AI tools collect user data, such as voice recordings or personal learning records. If this data is not protected, it may be misused or leaked .

2. Bias in AI Systems: Some tools might favor certain accents or cultures. For example, pronunciation tools may struggle with non-native accents and give unfair feedback.

3. Digital Divide: Not all learners have access to devices or stable internet. This creates unequal learning opportunities, especially in rural or low-income areas .

4. Teacher Training: Some teachers may not know how to use AI tools effectively. Without proper training, they may avoid using helpful technologies altogether .

Example: An AI writing tool may not understand cultural differences in expressions or idioms, leading to corrections that are technically accurate but contextually inappropriate.

7 . Future Perspectives and Trends

The future promises exciting changes in the way we teach and learn languages, thanks to continued advances in AI .

- AI + Augmented Reality (AR): Learners might practice English in virtual cafes or airports. These immersive environments mimic real-life scenarios, improving language use in context .
- Automated Assessment: Speaking and writing exams scored by AI reduce teacher workload and offer instant results. However, teachers still need to verify quality and fairness .