

## AI AND ENGLISH LANGUAGE LEARNING OUTCOMES

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### Abstract

*This study explores the transformative role of AI in enhancing English language learning outcomes for underperforming students (D grades) across diverse academic levels (1st to 8th semesters). Recognizing that standard AI tools fail to cater effectively to English for Specific Purposes (ESP) for students with varied abilities, the researchers devised a customized AI-driven approach centered on Outcome-Based Education (OBE) and student-centered strategies. The paper examines AI technologies, including natural language processing (NLP), machine learning, speech recognition, and intelligent tutoring systems, which enable personalized learning experiences. These tools were adapted to students' individual proficiencies, delivering real-time feedback, targeted practice, and contextualized tasks that enhance speaking and writing skills. The research emphasizes interactive and data-driven methodologies that foster deeper engagement and sustained motivation. Empirical data were drawn from an experimental study employing Jawaid TESOL Benchmarking Model (2014), highlighting benchmark outcomes. Critical challenges, including ethical concerns, data privacy, equitable access, and educators' preparedness for AI integration, are also discussed. The research culminates in a structured framework for embedding AI technologies in English language courses, emphasizing scalable, inclusive, and sustainable practices. By redefining language pedagogy, the study positions AI as a paradigm shift that advances educational equity and promotes student-centered learning in technologically enhanced environments.*

**Keywords:** Artificial Intelligence, English Language Learning, Benchmarking, Linguistic Skills, Educational Technology, Cross-Cultural Competence.

### Introduction

The issue of weak students in achieving proficiency in English was highlighted by the University Management. A detailed identification process revealed a significant number of challenging students (Grades D and below) who faced persistent difficulties in their speaking and writing skills. Recognizing the critical need to address these challenges, it was decided to focus on enhancing their linguistic abilities through targeted interventions.

Artificial Intelligence (AI) was identified as a potential solution, given its ability to provide personalized learning experience and utility at masses. However, the initial research of standard AI tools revealed that they failed to meet the requirements of a "fit for purpose" English course. The tools often delivered incoherent ideas, long sentences, and complex expressions that were unsuitable for the learners' needs.

- **ChatGPT:** Simplifies "Can you tell me the way to nearest hospital?" to "Where is hospital."
- **Gemini:** Reduces "In my opinion, we should go to beach." to "Let us go to beach."

- **Meta:** Condenses "English is a global language and speaking it fluently can open many doors." to "English language is very useful."
- **Blackbox.AI:** Shortens "I believe that education is very important." to "Education is very important."

To overcome these shortcomings, the team conducted extensive research on various AI models. Unfortunately, many models proved inadequate. This led to the development of a customized AI approach tailored to meet specific language requirements. The adapted AI was designed to align with Outcome-Based Education (OBE) principles and focus on the unique needs of the students, delivering clear and concise speaking performance.

Despite these advancements, various AI platforms still present difficulties in effectively addressing users' needs. Platforms like ChatGPT, Gemini, Meta, and BlackBox. AI often simplify responses excessively or fail to align closely with educational objectives. Examples include ChatGPT reducing complex queries like "Can you tell me the way to the nearest hospital?" into overly basic statements such as "Where is hospital," or Meta simplifying "English is a global language and speaking it fluently can open many doors" to "English language is very useful." Similarly, Gemini and BlackBox. AI also faces challenges in providing nuanced expressions or maintaining context. These issues highlight the need for more refined AI model that can balance simplicity with linguistic accuracy, ensuring it meets the diverse and practical needs of English language learners.

### **Background**

The issue of weak students in achieving proficiency in English was brought to the forefront by the University Management. A detailed identification process revealed that many students with low academic grades (C-, D, E, F) struggled with their speaking and writing skills. These challenges underscored the urgent need for targeted interventions to enhance their language capabilities.

To address this issue, the focus was placed on developing students' speaking and writing competencies using innovative methodologies. Artificial Intelligence (AI) was identified as a potential solution due to its adaptability and ability to provide personalized learning experiences. However, initial attempts to utilize AI tools highlighted significant shortcomings. The available AI models delivered incoherent ideas, overly long sentences, and complex expressions that were unsuitable for the targeted learner group.

In response, the team undertook an extensive search for alternative AI models. Despite exploring diverse options, the tools continued to fall short of expectations, emphasizing the need for a customized approach. Recognizing this gap, the team adapted existing AI technologies to meet the specific needs of their learners. The resulting system aligned with the students' linguistic abilities, focusing on clarity, coherence, and practical language usage.

The team also incorporated groundbreaking innovations to ensure the course was "fit for purpose." Teachers' voices were recorded and coded into the AI system, providing learners with authentic pronunciation models and accurate references. The course content was meticulously designed to untie the tongue, encouraging learners to overcome speech hesitations while focusing on real-life tasks and activities to make learning engaging and relevant. It was divided into structured stages, starting with basic concepts and gradually advancing to more complex topics. Priority was given to the most frequently used words and the present tense, which constitutes 80% of daily communication, making the course immediately applicable to learners'

everyday interactions. This innovative course design, paired with adapted AI, marked a significant leap forward in addressing the specific needs of struggling students.

- **Recording Teachers' Voices and Coding Them:** To provide authentic pronunciation models, teachers' voices were recorded and coded into the AI system, ensuring learners had accurate references.
- **Course Content Design:** The course was meticulously designed to untie the tongue, encouraging learners to overcome speech hesitations.
- **Focus on Real-Life Tasks:** Practical, real-world tasks were emphasized to make learning engaging and relevant.
- **Structured Stages:** The course was divided into structured stages, starting with basic concepts and gradually advancing to more complex topics.
- **Frequent Words and Present Tense:** Priority was given to the most frequently used words and the present tense, which comprises 80% of daily conversations, making the course immediately applicable to learners' everyday interactions.

This innovative course design, paired with adapted AI, marked a significant leap forward in addressing the specific needs of struggling students.

### Literature Review

The TESOL Benchmarking Model for English Learning, developed by Arif Jawaid (2014), emphasizes a holistic approach to effective language acquisition. This model identifies key interconnected factors essential for fostering linguistic proficiency. These factors include planning, the management of teaching and learning, learner-centered approaches, the use of resources, assessment of learning, monitoring and evaluation including proximal development of students, Teacher and student engagement, real life tasks and activities language practice. By integrating these components, the model aims to provide a structured framework for English language learning that promotes both practical and fit for purpose language learning.

This model underlines the importance of balancing structured lesson planning with real-world applications, ensuring learners have an engaging and effective environment to develop their language skills. The visual representation of this model further aids in understanding its multi-dimensional approach to language education (Jawaid, 2014).

The modal highlights the interconnected elements essential for effective language acquisition. This model emphasizes the core idea of "Proximal Development," It is also reiterated by several critical factors that provide the students English learning good practices.

1. Planning: Establishing structured and goal-oriented teaching strategies.
2. Management of Teaching and Learning: Ensuring organized and effective delivery of lessons.
3. Learner-Centered Approaches: Tailoring lessons to meet the unique needs of individual learners.
4. Use of Resources: Leveraging available tools and materials to enrich the learning process.
5. Assessment of Learning: Employing diverse methods to gauge language proficiency effectively.
6. Monitoring and Evaluation: Regularly assessing student progress to ensure alignment with learning objectives.

The modal principles of the modal:

- a. Proximal development of students

- b. Teacher-students Involvement: Encouraging active collaboration between educators and students.
- c. Realistic Learning Experiences: Utilizing simulations and real-world tasks to provide contextualized learning.
- d. Active Language Practice: Promoting consistent use of language in practical tasks.

This model underscores the holistic nature of language learning, emphasizing the integration of strategic planning, practical application, and ongoing assessment to foster an engaging and effective learning environment.

As academics and practitioners focus efforts on the design and act of teaching and learning English language skills, many acronyms are often attached to various nuances and temporal trends. Computer-assisted language learning (CALL) and mobile-assisted language learning (MALL) focus on the technology used in language learning. English as a second language (ESL), English for speakers of other languages (ESOL), and English as a foreign language (EFL) focus on the learning of English as a language. Other terms such as TESL, TESOL, and TEFL are focused on the teaching of English. For this study, the focus is on English as the target language for those whose first language is not English, investigating aspects of both teaching and learning. As English language teaching and learning (ELT/L) is the term used in other scholarly work (e.g., Margana, 2016), it has been selected for use in this study.

Recent developments have seen a rise in AI, with empirical findings (e.g., Crompton et al., 2022) revealing a trend towards using AI in language learning and writing skills more frequently than in other disciplines. Technology has been an integral support in ELT/L (Rivera Barreto, 2018). Technology provides teaching and learning resources, motivates pupils (Larsen-Freeman & Anderson, 2011), facilitates learning (Ahmadi, 2018), and provides new methods for learning (Gilakjani, 2017).

### **Extant Systematic Reviews**

#### **Fit for Purpose Course with Adapted AI**

A significant breakthrough in English language learning was achieved through the development of a "fit for purpose" course using adapted AI technologies. The course was meticulously designed to cater specifically to the diverse needs of learners, incorporating innovative elements that bridged the gap between academic instruction and real-world communication. Teachers' voices were recorded and coded into the system, providing learners with authentic pronunciation models. This adaptation ensured learners could practice speech patterns that align with real-life language use.

The course content was crafted to untie the tongue, focusing on overcoming speech hesitations and fostering confidence in speaking. Real-life tasks and activities formed the foundation of the curriculum, offering practical scenarios that enhanced contextual understanding and application. To ensure progressive learning, the course was divided into structured stages, beginning with foundational concepts and advancing to complex language usage. Moreover, the course emphasized the use of frequently spoken words and prioritized the present tense, which constitutes 80% of daily communication. This focus enabled learners to acquire immediately applicable language skills, making the learning process both effective and relevant.

These deliberate adaptations of AI within the course framework marked a transformative step in addressing the unique challenges faced by students in developing English language proficiency, blending strategic planning with practical application seamlessly.

#### **Framework for AI-Enhanced Learning**

The framework for AI-enhanced English language learning is grounded in principles that personalize and optimize the educational experience. AI systems adapt to individual learners' proficiency levels, aligning lessons with specific language learning needs. Interactive platforms incorporating task-based activities and gamified tools foster engagement and motivation, while immediate feedback enables iterative skill refinement. Cultural adaptability ensures that AI model respects and incorporates cultural nuances, enhancing the authenticity of communication practices.

### **Types of AI Tools in Language Learning**

Artificial Intelligence tools play a pivotal role in addressing various aspects of language acquisition, enabling personalized and efficient learning experiences. Speech recognition software such as Duolingo and Speechify evaluate pronunciation and fluency, providing real-time feedback to improve accuracy (Hassan et al., 2022). Grammar and writing assistants like Grammarly offers detailed analyses of written text, identifying errors and providing context-sensitive suggestions for improvement (Liu & Zhang, 2022). Adaptive learning platforms, including Babbel, dynamically adjust lesson content to match learners' progress and proficiency levels, ensuring optimal challenges without overwhelming users (Huang & Chern, 2022).

Conversational AI chatbots, such as HelloTalk, create realistic conversational settings that help reduce language anxiety while enhancing fluency (Kukulska-Hulme, 2023). Language immersion tools like FluentU introduce learners to real-world content, such as videos and news, fostering better comprehension and contextual language use (Wang et al., 2024). Moreover, virtual reality (VR) environments simulate real-world scenarios, allowing learners to practice speaking confidently in diverse professional and social settings (Kim & Choi, 2024). Collectively, these AI-driven tools are reshaping language education, equipping learners with language skills for effective communication. However, they seem to deal with the provision of contents and methodology that are too specific and individualised. Moreover, it is based for a student of third world country to afford financially. Finally, the TESOL good practice mentioned below seems to be ignored discover the easiest way of learning and speaking English language.

- **Active Language Practice:** Real-time usage of language for practical tasks.
- **Teacher-Pupil Involvement:** Collaboration and mentorship in learning.
- **Learner-Centered Approaches:** Lessons tailored to individual needs.
- **Realistic Learning Experiences:** Simulations and contextual tasks.
- **Monitoring and Evaluation:** Regular progress assessments.
- **Use of Resources:** Leveraging technology and instructional tools.
- **Planning and Management:** Structured approaches to teaching and learning.
- **Listening Stage:** Focus on comprehending native speaker models.
- **Interactive Stage:** Combines listening and speaking, with corrective feedback.
- **Independent Speaking Stage:** Encourages fluent, prompt-free speaking.



Fig: Some of the example screenshots of English LangBridge AI

### Challenges with General AI Models

During the initial testing phase, general AI models failed to generate responses that aligned with the course objectives. These models often lacked good practices of English language learning specificity and relevance, delivering output that did not effectively cater to the learners' needs. This highlighted the urgent need for customization. Recognizing these limitations, the team identified the necessity to train an AI model based upon Jawaid modal (2014). By doing so, the AI could produce more targeted and effective output, ensuring that it met the specific linguistic requirements of the learners.

### Model Training Process

The process of training the AI model involved several innovative steps to ensure its effectiveness and adaptability for English language learning. Jawaid customized course was utilized as the foundation for training the AI system. This course offered a tailored approach to meet the unique learning needs of students.

The content was broken down into manageable segments, starting with five basic conversation topics. Each topic was divided into three learning stages, such as "Myself" and "How to describe

something," to ensure progressive learning. Cutting-edge technologies, including Machine Learning and Natural Language Processing (NLP), were employed to enhance the system's ability to understand language and generate relevant responses. These technologies enabled the AI to deliver personalized lessons and highly interactive exercises while ensuring accuracy and effectiveness.

### **Development Process for AI-Enhanced Language Learning**

The development process for creating an AI-enhanced language learning system involved several key steps, ensuring its effectiveness and relevance for learners:

First, the team gathered requirements by understanding the learners' needs, such as improving speaking skills, and defining successful metrics like achieving a specific language proficiency level. Next, relevant data was collected, including content from Jawaid's 2014 model, real-life example sentences, present tense, grammar rules, and frequently used words. The data was then preprocessed, which involved cleaning and organizing content for consistency and clarity, breaking down complex sentences, and structuring lessons by difficulty levels starting with beginner-level material.

The model development phase focused on creating systems that recommended lessons based on learner progress, generated exercises such as gap-fill activities, quizzes, and translations, and provided real-time feedback on speaking or writing tasks, including delayed grammar and pronunciation corrections. Testing and validation of the model were conducted using real learners to ensure the AI recommended appropriate lessons and offered accurate feedback, with validation based on whether learners demonstrated measurable improvements.

The deployment phase involved integrating the AI system into a mobile app or web platform, enabling learners to access lessons, practice exercises, and receive instant feedback. Continuous monitoring and maintenance were prioritized to track learner performance and AI accuracy, alongside regular updates to lessons and AI retraining to adapt to evolving learner needs and new content.

### **EnglishLangBridgeAI**

The EnglishLangBridgeAI is currently undergoing rigorous testing and updates based on user feedback and performance metrics. Faculty members from the Faculty of Languages are being trained to utilize the EnglishLangBridgeAI effectively in their teaching practices, ensuring its integration aligns with pedagogical goals.

The official launch of the EnglishLangBridgeAI is scheduled soon, offering a cutting-edge tool for improving English fluency. This innovative AI-driven solution promises to revolutionize language learning by providing tailored, interactive, and real-time support to learners.

### **Conclusion**

Artificial Intelligence has significantly transformed English language learning by addressing key challenges and offering tailored solutions that cater to diverse learner needs. It has proven to be a revolutionary force in improving language learning outcomes through personalized approaches, which lead to measurable improvements in proficiency. Additionally, AI fosters educational equity and cross-cultural competence, bridging gaps in traditional language education. By enabling personalized instruction and incorporating adaptive methodologies, AI has opened new avenues for learners to achieve fluency, accuracy, and confidence in communication.

Tools like the EnglishLangBridgeAI illustrates how technology can bridge gaps in traditional language learning, empowering students to overcome linguistic barriers through real-time feedback and interactive learning experiences. Furthermore, AI-driven solutions contribute to

creating an inclusive and globally connected learning environment. The integration of cultural adaptability and advanced tools such as virtual reality and chatbots ensure learners not only acquire linguistic proficiency but also gain practical skills applicable to real-world scenarios. As AI continues to evolve, its potential to complement human instruction and enhance pedagogical practices will redefine the educational landscape. The future lies in hybrid models that seamlessly blend AI technology with traditional teaching, creating robust and effective systems for language acquisition worldwide.

Artificial Intelligence has significantly transformed English language learning by addressing key challenges and offering tailored solutions that cater to diverse learner needs. By enabling personalized instruction and incorporating adaptive methodologies, AI has opened new avenues for learners to achieve fluency, accuracy, and confidence in communication. Tools like the EnglishLangBridgeAI illustrates how technology can bridge gaps in traditional language learning and teaching, empowering students to overcome linguistic barriers through real-time feedback and interactive learning experiences.

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