



## AI-Powered Classrooms: developing Student-Teacher Interaction and shaping the Future of English Language Learning.

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### الفصول الدراسية المدعومة بالذكاء الاصطناعي: تطوير التفاعل بين الطالب والمعلم وصياغة مستقبل تعلم اللغة الإنجليزية.

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#### Abstract:

The acceptance of Artificial Intelligence (AI) in education has updated traditional and fixed classrooms, reforming the dynamics of student-teacher contact and redefining English language learning. This study investigates how AI-powered classrooms encourage engagement, modify learning experiences, and boost interaction between learners and tutors. By consuming AI-driven technologies such as chatbots, practical tutors, and adaptive education systems, teachers can bring direct feedback, address varied learning styles, and form an interactive language learning atmosphere. The study explores both the benefits and challenges of incorporating AI in English language learning, put emphasis on its role in linking communication gaps, improving learner enthusiasm, and supporting tailored instruction. By means of a mixed-methods approach, on the way from both tutors and learners are analyzed to estimate AI's authority on teaching methodologies and learning effects. The findings designate that AI-powered classrooms develop a more learner-centered skill, nurturing both language growth and active classroom contribution. Nevertheless, concerns regarding moral principles, teacher readiness, and the balance between AI integration and individual interaction continue fundamental for efficient realization. This study contributes to the continuing discussion on AI in education, provided that valuable perceptions on its future contact on English language learning .

#### . Keywords:

(AI) Artificial Intelligence / English Language learning / students / teachers

#### ملخص البحث

السماح للذكاء الاصطناعي في برامج التعليم إلى تحديث الفصول الدراسية التقليدية إلى إعادة صياغة ديناميكيات التواصل بين الطالب والمعلم، وإعادة تعريف تعلم اللغة الإنجليزية. تبحث هذه الدراسة على كيفية تنظيم الفصول الدراسية و المدعومة بالذكاء الاصطناعي على المشاركة، وتعديل تجارب التعلم، وتعزيز التفاعل بين المتعلمين والمعلمين. من خلال استخدام التقنيات المدعومة بالذكاء الاصطناعي، مثل روبوتات الدردشة والمعلمين العمليين وأنظمة التعليم المتاحة، يمكن للمعلمين تقديم ملاحظات مباشرة، ومعالجة أنماط التعلم المتنوعة، وخلق بيئة تفاعلية لتعلم اللغة الإنجليزية. هناك نوع من فوائد والتحديات لدمج الذكاء الاصطناعي في تعلم اللغة الإنجليزية، مع التركيز على دوره في سد فجوات التواصل،



وتحسين أداء المتعلم، ودعم العملية التعليمية. من خلال نهج متعدد الأساليب، يتم تحليل كل من المعلمين والمتعلمين تحت سلطة الذكاء الاصطناعي على مناهج التدريس وساليب وإيجابيات التعلم. أن الفصول الدراسية المدعومة بالذكاء الاصطناعي تُطور مهارات أكثر تركيزًا على المتعلم، مما يُعزز نمو اللغة والمساهمة الفعالة في الفصل الدراسي. مع ذلك، لا تزال المخاوف المتعلقة بالمبادئ الأخلاقية، وجاهزية المعلمين والتوازن بين دمج الذكاء الاصطناعي والتفاعل الفردي أساسية لتحقيق الكفاءة. تُسهم هذه الدراسة في النقاش المستمر حول الذكاء الاصطناعي في التعليم، شريطة أن تُقدم تصورات قيمة حول تأثيره المستقبلي على تعلم اللغة الإنجليزية....

**الكلمات المفتاحية:** الذكاء الاصطناعي، تعلم اللغة الإنجليزية، الطلاب، المعلمون.

## INTRODUCTION:

- The incorporation of artificial intelligence (AI) into education has ushered in a transformative era for language teaching and learning, essentially altering traditional classroom practices. Amongst the a mixture of disciplines influenced by AI, English Language Learning (ELL) stands out as experiencing major changes, with the possible to reform the relationship between teachers and learners. The combination of AI technology with ELL presents incomparable prospects for modified, engaging, and professional learning, concrete the way for a future where education is more reachable, reasonable, and impactful.
- ( AI ) in education consumes instrument learning algorithms, natural language processing (NLP), and figures investigative to expand smart systems that can realize, adjust to, and predict learner needs. In different English language classrooms, this evident during a variety of implements such as chat-bots, AI-powered language applications, practical instructors, and automatic feedback systems. These originalities contain varied learning styles, needs ,speeds, and proficiency levels, make certain a modified learning understanding for each learner. Through leveraging (AI) tutors can donate more time to important interactions, such as



mentoring and fostering originality, whereas regular tasks like evaluation and lesson planning are controlled by intellectual systems.

- Furthermore, (AI) tools encourage inclusivity by taking out difficulties to English language attainment. For instance, speech identification systems can adjust to local accents and unreliable fluency levels, making language learning more available to non-native speakers. As well, AI-powered platforms can evaluate enormous amounts of data to expect learning outcomes, classify learners who may be struggling, and propose besieged involvements, nurturing a practical rather than reactive learning atmosphere.

Summing up, AI-driven classrooms represent a major alter in English language learning, changing student-teacher interactions and reforming the educational landscape. Whereas, challenges continue, the probable benefits of AI—varying from modified learning to greater inclusivity—are undeniable. By approving (AI) sympathetically and ethically, tutors and policymakers can make sure that the future of ELL is not only inventive but also extremely human-centered, providing learners to succeed in progressively more globalized and interrelated world.

## APPRIVATION

Artificial Intelligence (AI)

English Language Learning (ELL)

Natural Language Processing (NLP)

Machine Learning (ML)



### **Significance problems.**

Conservative English language classrooms normally resist to deal with the various needs of learners, stalled by concerns as overcrowded classes, conflicting proficiency levels, and limited time for feedback. AI-powered tools present a talented solution by enabling modified learning experiences, empower learners to growth at their own pace while gaining continuous maintain. For teachers and policymakers, distinguishing the prospective of these equipment technologies is critical to totally leverage their advantages.

### **Objective of the study**

This research seeks to study the thoughtful influence of artificial intelligence on English language learning and its special effects on the dynamics between learners and tutors. By dealing with the key research questions, the study aims to add to the ongoing communication on the successful integration of AI technologies in educational settings.

### **Statement of the problem.**

In the face of the rising incorporation of technology in education, the use of AI-powered means in English language learning continues irregular and under discovered. Numerous of teachers lack the alertness or training needed to efficiently develops these tools, leading to missed prospects for educational improvement. Additionally, moral concerns, as well as data privacy and the prospective reject in individual relations and interaction within teaching, must be warily considered to make sure the dependable and sustainable acceptance of AI in education.



### Research Questions:

1. What challenges and principled issues appear from including AI into classroom atmosphere?
2. How does the use of AI-driven tools have an effect on the interaction between learners and tutors in English language learning?
3. What considerable outcomes do (AI) have on learners' language aptitude and engagement?

### Literature Review:

Varieties of studies confirm that (AI) technologies, such as Natural Language Processing (NLP) and Machine Learning (ML), considerably force English language learning. For example, Wang (2021) confirmed that AI-powered feedback systems develop learners' writing by classifying grammatical errors and offering direct corrections. In the same way, Lee and Chen (2020) investigated the value of AI chat bots in creating real-world conversations, which improved learners' speaking and listening skills. On the other hand, examiner like Smith (2022) concern against over-reliance on AI, increasing distress about possible disadvantage such as concentrated critical thinking and partial individual interaction.

### Improving Communication and Engagement between Students and Teachers

AI technologies are altering habitual student-teacher interactions by bringing in tools that develop cooperation and communication. For instance, AI-driven chat



bots operate as fundamental teachers, offering direct feedback and answering learner's questions. According to (Nguyen, 2003) It is argued that AI in education builds active and receptive learning atmosphere, which puts up the relationship between learners and teachers. These instruments develop teachers' facilities, permitting them to focus on more compound teaching challenges though AI deal with routine tasks.

Furthermore, (AI) supports inclusivity by high lighting on various learning conditions. Adaptive learning systems modify content stood on character skill levels, ensuring reasonable access to language education. Since Sharma and Patel (2022) note, it is suggested that modified AI resolutions allow learners by addressing their particular language needs, which in turn improves engagement and boosts learning outcomes.

On the **positive area**, AI tools such as intelligent teaching systems, chat bots, adaptive learning platforms, and real-time language processing applications create new opportunities for communication. For instance, AI can personalize learning by investigating learner data and presenting tailored feedback. This let teachers to spotlight more on meaningful, higher-order interactions such as lessons, mentoring, and cultural explanation. In this way, AI becomes a sustain system that promotes deeper engagement between learners and teachers by reducing recurring workload and permitting more individualized awareness.

As well, AI-powered tools smooth the progress of **continuous and multimodal interaction**, even further than the classroom environment. All the way through effective associates and language learning apps, the majority of learners can practice English at their own speed, obtain instant corrections, and still connect in simulated dialogues. These kinds of tools also facilitate teachers to observe learner improvement more successfully, fostering data-informed dialogues about





learning needs. As Luckin et al. (2016) note, AI can assist teachers achieve “better insight into learners’ learning courses,” facilitating more targeted support and interference. As a final point, AI-powered tools recommend important opportunities to develop interactions between learners and teachers in English language education by permitting for modified learning, reducing routine tasks, and smooth the progress of language improvement.

### Personalization and Motivation

AI-powered adapted learning experiences and skills play a fundamental task in rousing learners to attain English proficiency. A variety of tools such as Duo lingo and Grammar use (AI) to offer adapted exercises, path growth, and include gamified aspects that keep learners engaged. According to research by (Li & Madina, 2021), learners consuming AI-powered platforms confirm improved motivation and extended engagement balanced to straight learning approaches.

What is more, (AI) forces predictive critical to predict and deal with learning complication. By examining figures from learner interactions, (AI) systems classify learners facing complicatedness and propose targeted involvements. As Zhang and Wong (2020) reminder, ( AI) not only modifies learning to gather individual needs but as well dynamically overcomes barriers, supporting steady language growth.

### Transforming the Future of ELL

Innovations in artificial intelligence are balanced to redefine the future of English Language Learning. Cutting-edge skills like informal (AI) and practical authenticity propose immersive and interactive learning prospects. For instance, AI-driven fundamental teachers smooth the progress of practical discourse simulations, nurturing conversational fluency. As Johnson (2023) underscore,



Informal (AI) presents learners with realistic circumstances, training them for actual communication in global settings.

Likewise, (AI) plays a critical role in democratizing education by breaking down environmental and financial barriers. AI-powered online platforms present reasonable and high-class language resources to learners global. According to Kim and Lee (2022), AI-powered results recover access to language learning for underserved society, contributing to the decrease of educational gaps.

### Challenges and Ethical Issues

Even though (AI) holds transformative prospective for English language learning, its incorporation comes with challenges. A main concern is data isolation, as (AI) systems assemble general learner data to add to learning skills, defending this data is vital. (Baker, 2021) mentions that the realization of (AI) in education involves exacting procedures to guarantee principled usage and defend learner data.

Combining AI into classroom environments, mainly within English Language Learning (ELL), presents important benefits but as well raises important concerns. A key issue is the probable retreating of the individual aspect in education. As Selwyn (2019) notes, AI use in classrooms may *change rich human interactions into simple data-based processes, ignoring the emotional and relational extents of education.*

Furthermore, matters of privacy and observation are important. Williamson and Etymon (2020) underscore that “AI-based educational tools often meet large amounts of learner data,” prompting concerns about learned consent, data transparency, and security. Such practices may form classroom settings where





learners feel extremely observed, potentially disappointing them from engaging completely or taking linguistic risks.

## Conclusion

The incorporation of AI-driven technologies in classrooms is altering student-teacher interactions and developing the opportunity of English language learning. Since artificial intelligence persists to growth its role in education becomes progressively more essential, offering modern results that personalize instruction, boost up engagement, and sustain both learners and tutors in unique ways.

One of AI's mainly major contributions to language learning is its capability to form more active and interactive educational atmosphere. The old traditional methods regularly rely on the same curriculum that may not totally address the varied needs of learners. On the other hand, AI-powered platforms adjust instruction founded on individual proficiency levels, learning styles, and improvement, through presenting real-time feedback, modified lesson plans, and intellectual training. AI permits learners to accept modified support, permitting them to defeat linguistic barriers at their own pace.

What is more, AI boosts the student-teacher correlation by automating organizational tasks, freeing tutors to concentrate more on consequential instruction and mentorship. Elements such as automated grading, communication identification and AI-assisted classroom management decrease repetitive work, permitting teachers to engage learners in deeper dialogues, vital thinking activities, and collaborative projects.



Furthermore, AI-driven tools bring in new possibilities for immersive and experiential learning in English language education. Technologies such as effective and increased reality present learners with genuine, context-based learning experiences. Learners can slot in virtual conversations with AI tutors, treat pronunciation during speech recognition, and accept direct corrective feedback. These progressions not only improve language proficiency but also assist learners expand self-confidence and fluency for their real-world communication crosswise cultural and professional settings. AI-driven classrooms are altering student-teacher relations and redefining English Language Learning, by nurturing personalization, inclusivity, and enthusiasm whereas, AI technologies develop learning effects and democratizes access to education. Nevertheless, concentrating on principled concerns and keeping up human-centric approaches remain crucial to totally recognizing the potential of AI in ELL.

## Introduction

This part of the research outlines the methodology engaged in conducting the current study. It presents the detailed picture of the research design, data collection tools, participants and methods of analysis. The alternative of methodology was directed by the nature of the research questions which aims to investigate the impact of using AI- powered classrooms on developing students – teacher interaction and shaping the future of English language learning at Guarani University. To get suitable and reliable results, quantitative method was adopted. This method approach is chosen because it permits to present a richer data and will focus on measuring changes in EFL learners and teachers who studies at the university.



## Participants

This study aims **English as a Foreign Language (EFL) learners and teachers who studies at Guarani University** .Selecting participants from university that most of their learners use AI-powered educational platforms. A simple random sample of 50 students and 7 teachers was selected.

- **Students:** 50 EFL learners.
- **Teachers:** 7 EFL teachers.

## Data Collection Methods

According to Creswell, 2018 data can be primary or secondary and either quantitative or qualitative. This study mainly relied on the questionnaire as the major tool for collecting standardized data from a number of participants proficiently.

## (Quantitative Data)

- **Student Questionnaire:** procedures date, motivation, and supposed learning effectiveness in AI and non-AI classrooms.
- **Teacher Questionnaire:** evaluates perceptions of AI's role in classroom interaction and instructional maintain.
- **The questionnaire involves answering multiple-** choice concentrating on general idea, element, and inference.

The questionnaire consisted of three sections:

- Section One: related to basic demographic data (gender, age, English proficiency level, the position of the level of education and weather the participant is using (AI) tool in English language learning.
- Section Two: focus only on (AI) in student – teacher interaction.



- Section three: concentrating on the authority of (AI) on the future of English language learning.

### • Data Analysis

The methodology and processes of the study are essential principle in applying the practical part of the research. Scientific studies gain their value from the successful relationship between theoretical frameworks and practical applications, which contributes to complete the basics of the study and reaching its objectives.

This is done all the way through organizing a questionnaire directed to a selected sample from the target group. This tool is used to gather the essential data to carry out statistical analyses, leading to the desired conclusion and eventually reaching the principal target of this study.

Descriptive data: estimate of the average, standard variation, and frequency distribution of questionnaire responses to examine language expertise improvements in AI against non-AI classrooms also to evaluate variation in engagement and involvement across a variety of AI tools. Descriptive figures summarize and present data using percentages.

### Sample Results

**Based on the results it can be concluded that:**

- 1- Gender: the majority of the sample were females, accounting for (95%), while the percentage of males was (5%)
- 2- Age: the largest group, representing (70%) of the total sample, is aged between 18-25 of students and (30%) from 36 and more of teachers.
- 3- How would you describe your English proficiency level?



The majority of the students nearly (65%) between beginner and intermediate.

4- Do you use (AI) tools in English language learning?

The entire sample, representing (90%) is currently using (AI) in English language learning.

#### **Analysis and discussion of the study questions:**

5-To what amount do (AI) tools increase student-teacher interaction in English lessons?

**Different averages about to what degree do (AI) tools develop student-teacher interaction?** Mostly 50% highly, 30% moderately, 20% slightly.

6- How regularly do you utilize AI-powered tools (e.g., chatbots, virtual tutors, AI-assisted feedback) for learning English language?

7- Which (AI)-powered tools do you use most regularly?

Most of them use (AI) tools daily in their learning. 45% use different tools regularly in their learning such as ChatGPT, Duolingo) 20 % use automated assessment system, 15% using speech recognition tools and 20% use (AI) writing assistant.

8- Do you believe (AI) declines the essential for direct interaction with teachers?

44% said (yes) that (AI) reduces the need for direct teacher interaction, 40% said(No) ,whereas 16% not sure .

9- What obstacles do you meet while using AI for learning English?



25% of them selected ( limited face to face interaction ), 40 % selected (inaccurate (AI)-generated feedback) and 15% of them selected (technical difficulties) , while 20% chose (insufficient (AI) training for educators).

10-How much do you judge (AI) will change traditional teaching methods within the next decade??

15% said completely about (AI) will change traditional teaching methods within the next decade , 70% Partially and 15% not at all .

11-To what degree do you think (AI) personalizes English learning experiences?

85% Someone effective that (AI) will change the traditional methods in the future where as 15% slightly effective.

12- How do you identify the impact of AI on the future of English language learning?

25% of them feel neutral in shaping future of English language learning, 21% very beneficial, 18% feel beneficial , 15% unfavorable, while 21% feel very unfavorable.

## Conclusion and recommendations

AI-powered tools can alter to each learner's single learning pace and necessities. Applying AI platforms that evaluate learners' strong point and areas for improvement can permit modified feedback; ensuring lessons are adapted to their proficiency levels. Further, leverage (AI) to bring instant, in-depth feedback on learner performance. Features such as communication recognition for pronunciation, automatic paper grading, and AI-driven grammar correction can improve learning effectiveness, decrease teachers' workload, and present





timely sustain for learners. Nevertheless, despite its many advantages, (AI) combination in education comes with challenges, concerns linked to data privacy, moral issues, and the digital part must be addressed to make certain fair entrance to AI-driven learning tools. As well, while (AI) can recover learner engagement and learning results, it should not substitute the human feature of teaching. Tutors remain critical in promotion significant thinking, emotional aptitude, and the social proportions of language learning—fundamentals that (AI) alone cannot repeat. An objective approach that joins AI-driven instruction with individual leadership is vital to completely leveraging technology's advantages in education.

In my point of view, As AI-powered classrooms persist to grow; they will additional form the future of English language learning in ways that were once unbelievable. The relationship between AI and tutors has the possible to reform teaching methods, making education more available, successful, and engaging for learners universal. As tutors, researchers, and policymakers navigate this alteration, it is vital to approve AI correctly, ensuring that technological progressions empower both tutors and learners. Eventually, AI should supply as a tool that increases, rather than replaces individual.

## RECOMMENDATIONS

Encouraging association between learners and AI-powered tools can improve learning experiences. For example, learners can take on with AI chat bots to perform English conversations or investigate vocabulary in context. This approach promotes learner autonomy while permitting them to gain from teacher maintain. Moreover, supporting the combination of AI-powered tools together with traditional classroom instruction to build a blended learning atmosphere.



This approach presents a flexible learning knowledge, balancing in-person interactions with inaccessible learning opportunities.

The influence AI to meet and assess data on learner performance and deeds. These insights allow teachers to distinguish between styles, monitor progress, and modify their instruction consequently. As well, (AI) can recommend a complete consideration of the success of language-learning strategies applied in the classroom.

## References

- Baker, T., Smith, A., & Taylor, J. (2021). Ethical Implications of AI in Education: Safeguarding Data and Ensuring Fairness. *Journal of Educational Technology*, 18(3), 45-60.
- Creswell, J. W (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5<sup>th</sup> ad).SAGE Publications.
- Johnson, M., Roberts, L., & Singh, R. (2023). Conversational AI and its Impact on Language Proficiency. *Language Learning Journal*, 34(2), 123-136.
- Kim, S., & Lee, H. (2022). Democratizing Language Learning through AI Technologies. *Global Education Review*, 20(1), 56-72.
- Lee, J., & Chen, H. (2020). The impact of AI chat bots on English language speaking skills. *Journal of Educational Technology*, 45(3), 234-245.
- Li, M. & Madina, Z. (2021). *Artificial Intelligence Assists the Construction of Quantitative Model for the High-Quality Development of Modern Enterprises. Computational and Mathematical Methods in Medicine*, 2021.
- Lucking, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence unleashed: An argument for AI in education*. Pearson Education.
- Nguyen, P., Tran, D., & Hoang, M. (2023). AI in Education: Enhancing Interactivity and Personalization. *Educational Innovations Quarterly*, 29(4), 89-102.
- Selwyn, N. (2019). *Should robots replace teachers? AI and the future of education*. Polity Press.
- Sharma, R., & Patel, S. (2022). Adaptive Learning Systems for Language Proficiency: An AI Perspective. *International Journal of Educational Technology*, 15(2), 34-49.



- Smith, R. (2022). Ethical considerations in AI-driven education. *Education Ethics Quarterly*, 18(2), 89-102.
- Wong, S & Zhang, H. T. (2020). Predictive Analytics in Language Learning: Challenges and Opportunities. *AI and Education Research*, 12(3), 101-115.
- Wang, Y., Liu, X., & Zhang, Q. (2021). AI-assisted feedback and its role in improving writing proficiency. *Computers & Education*, 165, 104141.
- Williamson, B., & Eynon, R. (2020). Historical threads, missing links, and future directions in AI in education. *Learning, Media and Technology*, 45(3), 223–235. <https://doi.org/10.1080/17439884.2020.1798995>.