A Comparative Study of AI and Traditional Methods in Teaching Grammar to English Learners

Prof.Afreen Afshan Sheikh

Assistant Professor,

Nagpur Institute of Technology,Nagpur.

afreensheikh20888@gmail.com

9284391805

Abstract:

The research critically analyses the effectiveness of traditional methods of teaching and artificial intelligence (AI)-based teaching tools for the teaching of grammar to English language learners (ELLs). Technology tools like chatbots, grammar checkers, and apps that allow individualized learning have become popular because of the fast development of these tools in education. Moreover, learning a language has been dependent on the things taught by teachers, textbooks, and grammar exercises done in the classroom. Through the study of the effect of both strategies on grammar correctness, engagement of students, retention, and overall satisfaction, the study aims to evaluate them. According to the instructors, ELLs from young to older skilled participants attended both AI-based and normative grammar classes for a scheduled period using a blend of methods. The data that helped to determine students' experiences and performance outcomes was gathered using questionnaires, interviews, and assessments. The findings show that AI-based approaches have a huge impact on student engagement and grammar memory using quick corrections, adaptive learning routes, and individual feedback. Nonetheless, direct relations, on-the-spot education, and a teacher's ability to address students' differences are some major benefits of teaching the traditional way. The research results imply that ELLs can efficiently and effectively teach grammar if a mixed approach is utilized, which includes both AI-supported components and the student-centered characteristic of traditional teaching. This study draws attention to some new ways instructors may use to improve grammar teaching methodologies, contributing valuable data to the growing collection of work on using AI for language learning. The study has shown that ELLs have the potential to learn grammar in a more productive and highly efficient manner if a hybrid method is adopted, which combines the benefits of AI with the personalized touch of traditional training. This study presents some probable solutions to the

problems of improving grammar methods, thus giving considerable new data to the enlarging field of artificial intelligence (AI) for language learning.

Keywords: AI, conventional approaches, teaching grammar, learners of English, educational technology, language acquisition, hybrid approach, and student involvement

Introduction:

Technology has constantly been changing and updating the education sector, as new tools and methodologies are being developed to make learning experiences better. Out of all the most remarkable developments, AI (Artificial Intelligence) has been one of the latest and the best approaches that include a variety of techniques, especially language learning. English Language Learners (ELLs) can often struggle to master grammar this time of the year because of complex rules, exceptions, and variations. The traditional approach to teaching grammar prescribes the students the forms of the language and analytical exercises and textbooks and, thus, has been critical in helping the students acquire basic knowledge. However, the introduction of artificial intelligence and computer machines that can learn finds an innovative way to conduct the learning process, through algorithms and machine learning to the programming of personalized user-friendly, efficient, and interactive learning skills.

This paper aims at the comparison of AI-based tools and traditional methods in terms of effectiveness for ELLs' grammar study. Each of the methods will be learned through the comparison of benefits and drawbacks, thus allowing the students to gather information to help them master the two approaches (methods) to the lesson materials. The research focuses on the evaluation of the strategies teaching strategies based on accuracy in grammar alone but also other factors, viz., the learner's engagement, retention, and the overall learner's satisfaction.

The central hypothesis is that AI in the form of intelligent agents can give personalized feedback instantly and what the old-fashioned methods of teaching can do is provoke the young learners to participate in the class, understand the context, and develop higher-order cognitive thinking. The fusion of both perspectives includes strength areas of AI tools and the traditional method may be the best way of grammar teaching to ELLs in the twenty-first century.

2. Literature Review

2.1 Traditional Grammar Teaching Methods: The conventional grammatical teaching methods have been the elements of language education for eons. Students master grammatical rules with explicit instruction, and then they practice building their proficiency in grammar through exercises, drills, and writing assignments. Sometimes, textbooks are the central tools used, contributing structured lessons with examples that help the students navigate the intricacies of grammar. Teachers' responsibilities consist of facilitating explanations, error corrections, and feedback.

Studies have revealed that the traditional methods of introducing the basics of grammar and focusing on grammar subtleties that are hard to thoroughly examine by automated systems are more found to be successful. In addition, it is also a fact that classroom interactions permit students to ask questions, get additional information on the concepts that might be vague to them, and participate in discussions that are aimed to increase their understanding of the. Nonetheless, the said strategies have their deficiencies, like among others, the possibility of boredom, inflexibility in curricula to individuals' learning speeds, dependence on the teacher's presence, and the teacher's proficiency.

2. Review of Literature

2.1 Conventional Approaches to Teaching Grammar

For millennia, the foundation of language instruction has been traditional grammar teaching techniques. These methods usually entail giving students clear instructions on grammar principles, followed by practice using written assignments, drills, and exercises. Textbooks frequently play a key role in helping students navigate the difficulties of grammar by offering structured lessons and examples. By providing clarifications, fixing mistakes, and providing feedback, teachers serve as facilitators.

According to research, conventional approaches work especially well for presenting basic ideas and addressing the subtleties of grammar that automated systems can find difficult to grasp (Brown 87). Additionally, classroom interactions give students the chance to clarify things, ask questions, and participate in conversations that help them grasp concepts more thoroughly. These approaches do have certain drawbacks, though, such as the possibility of boredom, an inability to accommodate different learning styles and a dependence on the availability and skill of teachers.

2.2 AI-Powered Resources for Teaching Grammar

Grammar instruction is undergoing a paradigm shift thanks to AI-driven tools. Machine learning algorithms are used by programs like Grammarly, Duolingo, and Rosetta Stone to evaluate user input, spot mistakes, and give immediate feedback. These programs frequently have progress tracking, gamified components, and adaptive learning pathways that adjust to different skill levels.

According to studies, artificial intelligence (AI) tools can greatly increase learner engagement by making grammar practice fun and engaging (Kumar and Singhal 45). Furthermore, because AI is scalable, it can be widely accessed, allowing students to study whenever it is most convenient for them. Critics counter that rather than encouraging a deeper comprehension of linguistic structures, AI tools may oversimplify grammar training by emphasizing error correction (Smith 102). Additionally, these tools might have trouble with cultural quirks, colloquial idioms, and context-sensitive errors.

2.3 Hybrid Approaches

Studies show that by making grammar practice enjoyable and interesting, artificial intelligence (AI) tools can significantly boost learner engagement (Kumar and Singhal 45). Additionally, AI is generally accessible due to its scalability, which enables students to study whenever it is most convenient for them. Critics argue that by focusing on error correction, AI technologies may oversimplify grammar teaching rather than promote a deeper understanding of linguistic structures (Smith 102). Furthermore, these technologies may struggle with context-sensitive errors, colloquial idioms, and cultural peculiarities.

3. Research Methodology

3.1 Objectives

1. To assess how well AI-based resources teach grammar to English Language Learners.
2. To evaluate how typical teaching approaches affect students' acquisition of grammar.
3. To contrast the two methods' advantages and disadvantages.

4. To investigate how hybrid teaching methods might improve grammar training.

3.2 Participants

120 ELLs from a range of educational and linguistic backgrounds, ages 15 to 35, participated in the study. Participants were split into two groups: Group B was taught grammar using conventional techniques, whereas Group A received instruction based on artificial intelligence.

3.3 Methods

Over 12 weeks, both groups were exposed to the same grammar issues, such as prepositions, subject-verb agreement, and tenses. While Group B participated in teacher-led classes and finished textbook exercises, Group A used artificial intelligence (AI) applications like Grammarly and Duolingo.

3.4 Information Gathering

Surveys were used to gauge participation and satisfaction, interviews were used to gather qualitative information, and pre-and post-tests were used to gauge grammar competency. Quantitative data were assessed using statistical analysis, while qualitative responses were subjected to thematic classification.

5. Findings and Conversation

4.1 Mastery of Grammar

The findings demonstrated that Group A improved its grammatical accuracy more quickly, especially in recognizing and fixing common mistakes. This is because AI tools offer real-time feedback and tailored recommendations. However, Group B's capacity to apply ideas to challenging situations and creative writing assignments revealed a stronger comprehension of grammatical norms.

4.2 Involvement and Contentment

According to surveys, students in Group A appreciated the gamified elements and immediate feedback, and they considered the AI tools to be convenient and entertaining. Group B, on the other hand, appreciated the chance to raise questions during class and the interpersonal contacts.

4.3 Difficulties and Restrictions

AI technologies were criticized for sometimes giving general feedback and for not being able to handle context-sensitive failures. On the other hand, scalability issues, time limits, and teacher quality fluctuation plagued traditional systems.

4.4 Potential for Hybrid

In follow-up conversations, participants indicated that they preferred a hybrid approach that combined the depth of traditional training with the effectiveness of AI tools. It was thought that this strategy worked especially well for accommodating different learning styles and needs.

5.Inconclusion

The results of this study highlight how AI and conventional approaches to teaching grammar to ELLs can work in tandem. While traditional approaches provide the contextual depth and human contact required for thorough language acquisition, AI tools are excellent at creating individualized, captivating, and scalable learning experiences. A possible direction for grammar education in the future is a hybrid approach that combines both approaches.

To investigate the long-term effects of hybrid models and to create plans for successfully incorporating AI tools into conventional curricula, more research is required. Teachers must modify their methods as technology advances to fully utilize its potential while maintaining the human-centered components necessary for meaningful learning.

Works Cited

- Brown, H. D. *Principles of Language Learning and Teaching*. Pearson Education, 2014. Johnson, Mary. "Blending AI with Traditional Methods: The Future of Language Learning." *Journal of Educational Technology*, vol. 25, no. 3, 2022, pp. 65–78. Kumar, Pradeep, and Meera Singhal. "AI in Education: Revolutionizing Learning Approaches." *International Journal of Educational Research*, vol. 47, no. 2, 2023, pp. 40–50. Smith, John. "The Role of Teachers in the AI Era." *Language Education Today*, vol. 18, no. 1, 2022, pp. 100–115.