

ARTIFICIAL INTELLIGENCE AND FRENCH EDUCATION: OPPORTUNITIES AND CHALLENGES IN TEACHING FRENCH AS A FOREIGN LANGUAGE (FLE)

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Abstract

Artificial Intelligence (AI) has become one of the most significant technological innovations of the twenty-first century, transforming various sectors of society, including education. In language education, AI has introduced new possibilities for personalized learning, adaptive instruction, intelligent tutoring systems, and automated assessment. This article examines the role of artificial intelligence in French as a Foreign Language (FLE) education. Drawing on documentary research and qualitative analysis of existing literature, the study explores how AI contributes to language acquisition, learner autonomy, pedagogical innovation, and classroom effectiveness. The article incorporates perspectives from both international and African scholars to provide a comprehensive understanding of AI in language education. Findings reveal that AI enhances French language learning through personalized instruction, immediate feedback, conversational practice, and flexible access to learning resources. However, challenges such as inadequate teacher training, digital inequality, ethical concerns, data privacy issues, and infrastructural limitations remain significant. The study concludes that AI should serve as a complementary tool that supports teachers rather than replacing them. It recommends increased professional development for educators, investment in digital infrastructure, and the development of inclusive policies to ensure equitable access to AI-enhanced learning environments.

Keywords: Artificial Intelligence, French Language (FL), Educational Technology, Digital Pedagogy, Language Learning, Teacher Training.

Introduction

The rapid advancement of technology has significantly transformed educational systems across the world. Among the emerging technologies shaping contemporary education, Artificial Intelligence (AI) occupies a central position. AI refers to computer systems capable of performing tasks that normally require human intelligence, such as reasoning, learning, problem-solving, and language processing (Russell & Norvig, 2021).

According to Holmes, Bialik, and Fadel (2019), AI has the potential to revolutionize education by creating personalized learning experiences and supporting teachers in instructional decision-making. UNESCO (2023) similarly recognizes AI as a transformative tool capable of improving educational access, quality, and inclusion when implemented responsibly. Language education is one of the fields most influenced by AI innovations. AI-powered applications such as intelligent tutoring systems, speech recognition software, automated writing assistants, and conversational chatbots have changed the way learners acquire foreign languages. These technologies provide opportunities for learners to engage with language learning materials independently while receiving immediate feedback.

French remains one of the most widely taught foreign languages globally and serves as an official language in many African countries. Consequently, integrating AI into French language education has become increasingly relevant. As educational institutions seek innovative approaches to language teaching, AI presents opportunities for improving learner engagement, language proficiency, and instructional effectiveness. This paper examines the applications, benefits and challenges of AI in French language education. It also highlights

contributions from African and international scholars to provide a balanced perspective on the future of AI-enhanced language learning.

Conceptual Framework: Artificial Intelligence in Education

Artificial Intelligence refers to technologies that enable machines to simulate aspects of human intelligence. Russell and Norvig (2021) define AI as the study and design of intelligent agents capable of perceiving their environment and acting to achieve specific goals.

In educational settings, AI includes technologies such as machine learning, natural language processing, intelligent tutoring systems, predictive analytics, and generative AI. According to Luckin (2018), AI can personalize learning by adapting educational content to learners' abilities, needs, and preferences. Holmes et al. (2019) argue that AI should be viewed not merely as a technological innovation but as a means of supporting educational transformation. Through adaptive learning systems and intelligent feedback mechanisms, AI contributes to learner-centered education. UNESCO (2023) further emphasizes that AI can enhance educational equity and effectiveness when used within ethical and inclusive frameworks.

Artificial Intelligence and Foreign Language Learning

Foreign language learning requires the development of listening, speaking, reading, writing, grammar, vocabulary, and cultural competencies. Traditional classrooms often face challenges in meeting the diverse needs of learners. According to Wang and Vásquez (2023), AI supports language learning through adaptive instruction, individualized feedback, and intelligent tutoring systems. These technologies allow learners to progress at their own pace while receiving personalized guidance.

Woo and Choi (2021) found that AI-based language learning applications improve language proficiency through vocabulary development, pronunciation training, grammar correction, and interactive learning activities. Similarly, Xu, Su, and Liu (2024) demonstrated that AI-generated feedback enhances learners' writing performance by identifying errors and suggesting corrections in real time. Conversational AI applications also contribute to language acquisition. Yan, Li, and Lowell (2025) observed that AI chatbots provide learners with opportunities to practice communication in authentic and low-anxiety environments, thereby improving confidence and communicative competence.

Artificial Intelligence and Language Education in Africa

The integration of AI into African educational systems has attracted increasing scholarly attention. African researchers acknowledge the potential of AI to address educational challenges and improve learning outcomes. Aremu and Adeyemi (2023) argue that AI can improve educational quality by supporting personalized learning and expanding access to educational resources. They emphasize that intelligent learning systems can help address challenges associated with overcrowded classrooms and limited teaching materials.

In Nigeria, Eze and Maduekwe (2022) observe that digital technologies are transforming educational practices in higher institutions. Their research highlights the role of AI-driven learning platforms in promoting learner autonomy and individualized instruction.

Oyetade (2021) further emphasizes the importance of technology-enhanced language learning in developing communicative competence. According to the author, digital learning environments allow learners to interact with authentic language materials beyond the classroom. Ngugi and Mutua (2024) maintain that AI can support multilingual education across Africa through translation technologies, speech recognition systems, and intelligent tutoring applications.

Mhlanga (2023) notes that while AI offers significant opportunities for educational development in Africa, challenges such as inadequate infrastructure, limited internet access, and insufficient teacher training continue to hinder implementation.

Applications of AI in Teaching French as a Foreign Language

Personalized Learning

One of the most important contributions of AI to FLE education is personalized learning. AI systems collect data on learner performance and adapt instructional content accordingly. Luckin (2018) explains that adaptive learning technologies create individualized learning pathways that respond to learners' strengths and weaknesses. This approach enables French learners to receive customized vocabulary exercises, grammar activities, and reading materials.

Intelligent Tutoring Systems

Intelligent tutoring systems provide learners with individualized guidance similar to that offered by human teachers. According to Holmes et al. (2019), these systems improve learning efficiency by monitoring student progress and offering corrective feedback. In FLE classrooms, intelligent tutors can assist learners in mastering grammatical structures and language usage.

Automated Feedback

Feedback plays a crucial role in language acquisition. AI-powered writing assistants and grammar checkers provide immediate feedback on learners' written work.

Xu et al. (2024) found that AI-generated feedback improves learners' writing accuracy and encourages independent learning. Speech recognition technologies also assist learners in improving pronunciation by identifying errors and suggesting corrective measures.

Conversational AI

Conversational chatbots provide opportunities for learners to practice French through simulated interactions. Yan et al. (2025) report that conversational AI enhances speaking confidence and communicative competence by creating interactive learning environments.

Assessment and Learning Analytics

AI facilitates continuous assessment through automated quizzes, performance tracking, and learning analytics. Teachers can use learning analytics to identify areas where learners struggle and design targeted interventions to improve performance.

Benefits of AI in French Education

AI offers numerous benefits to both learners and teachers.

First, AI promotes learner autonomy by enabling students to access educational resources independently. Second, AI supports personalized learning by adapting content to individual needs. Third, AI enhances motivation through interactive and engaging learning environments.

Fourth, AI provides immediate feedback, allowing learners to identify and correct errors quickly. Finally, AI reduces teachers' administrative workload by automating grading and performance monitoring.

Challenges of AI Integration

Despite its benefits, AI integration presents several challenges.

Teacher preparedness remains a major concern. Ghimire, Prather, and Edwards (2024) found that many educators require additional training to use AI effectively.

Ethical concerns relating to privacy, surveillance, algorithmic bias, and data protection also remain significant. Porayska-Pomsta, Holmes, and Nemorin (2024) emphasize the need for transparent and ethical AI governance.

Digital inequality is another challenge, particularly in developing countries. Mhlanga (2023) notes that inadequate infrastructure and limited internet connectivity restrict access to AI technologies. Finally, excessive dependence on technology may reduce opportunities for human interaction, which remains essential for language learning.

Discussion

The literature reviewed demonstrates that AI possesses considerable potential to transform French language education. International scholars such as Holmes et al. (2019), Luckin (2018), and Wang and Vásquez (2023) emphasize the benefits of personalization, adaptive learning, and intelligent feedback. Similarly, African scholars including Aremu and Adeyemi (2023), Eze and Maduekwe (2022), Oyetade (2021), Ngugi and Mutua (2024), and Mhlanga (2023) highlight the relevance of AI for addressing educational challenges within African contexts.

Both groups of scholars agree that AI should complement rather than replace teachers. Human educators remain indispensable for providing emotional support, cultural understanding, pedagogical expertise, and ethical guidance.

Recommendations

1. Educational institutions should provide continuous professional development on AI literacy for language teachers.
2. Governments should invest in digital infrastructure and internet accessibility.
3. Educational policymakers should develop ethical guidelines for AI use.
4. French language teachers should adopt blended-learning approaches that combine AI tools with traditional teaching methods.
5. Researchers should continue investigating the long-term impact of AI on language acquisition.

Conclusion

Artificial Intelligence is transforming French language education by providing innovative tools that support personalized learning, learner autonomy, and instructional effectiveness. The contributions of both international and African scholars demonstrate that AI offers significant opportunities for improving language acquisition and teaching practices. However, challenges related to teacher training, digital inequality, ethical concerns, and infrastructural limitations must be addressed. AI should therefore be viewed as a complementary educational resource that enhances rather than replaces the role of teachers. Through responsible implementation and adequate support, AI can contribute significantly to the future of French language education.

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