



Castledown

 OPEN ACCESS

Technology in Language Teaching & Learning

ISSN 2652-1687

<https://www.castledown.com/journals/tltl/>

Technology in Language Teaching & Learning, 7(2), 102655 (2025)

<https://doi.org/10.29140/tltl.v7n2.102655>

Review of AI in Language Teaching, Learning, and Assessment



AFSANEH HEYDARI GUJANI 

Sharif University of Technology, Tehran, Iran
afsaneheydari.gujani@gmail.com

AI in Language Teaching, Learning, and Assessment by Fang Pan, IGI Global Book ISBN 9798369308721

Integration of artificial intelligence (AI) in education, especially in second language (L2) learning, is rapidly advancing which shows promise in enhancing innovative teaching methods and enriching the learning experience. For English as a Foreign Language (EFL) students, strategic technology use is crucial to address task-related challenges. However, the obstacles to technology integration differ significantly among individuals, regions, and countries, impacting both developed and developing nations in distinct ways (Rintaningrum, 2023). Fang Pan in “*AI in Language Teaching, Learning, and Assessment*” offers a comprehensive understanding of the effectiveness, functions, and challenges of AI in language classes across different countries. This resource appears to be a valuable asset for educators, students, and researchers, seeking guidance on integrating AI into language teaching.

The book is structured into three sections—Preview, Perspectives, and Practice—consisting of 15 chapters that explore the integration of AI in language education. The first chapter discusses key themes such as the benefits and challenges of AI, emphasizing its positive impact on language learning, students’ engagement, and personalized tutoring. Foundational theories like cognitive load theory and adaptive learning are examined in Chapter 2, alongside platforms like Tandem and Duolingo. Ethical considerations regarding academic integrity are highlighted, advocating for collaboration between educators and AI developers. In Chapter 3, the critical importance of developing adaptive assessment design and formal policies for AI integration is stressed, with suggestions for future editions to include discussion on machine translation tools and AI’s research role.

Copyright: © 2025 Afsaneh Heydari Gujani. This is an open access article distributed under the terms of the Creative Commons Attribution Non-Commercial 4.0 International License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.
Data Availability Statement: All relevant data are within this paper.

Section 2 (Chapters 4–8) explores perceptions of AI in L2 classrooms among educators, stakeholders, and students, highlighting the importance of digital literacy and the lack of familiarity with AI tools among instructors. Chapter 4 stresses the need for training on AI use and calls for more research on its integration in language education. Key themes such as personalization and ethical considerations in AI's educational role are identified in Chapter 5. Additionally, in Chapter 6, Pan presents the perspectives of pre-service teachers, noting that while AI-powered lesson plans improve engagement, they lack adaptability. It advocates for educators to create tailored lesson plans that AI can enhance. This chapter would be particularly beneficial for language educators seeking to not only enhance their students' performance but also infuse more creativity into their instructional approaches.

Chapter 7 and 8 collectively examine the diverse perspectives of AI in language education, emphasizing the importance of diverse stakeholders' views and individual attitudes. Chapter 7 analyzes Chinese newspaper discourse from 2018 to 2023, revealing a growing dialogue about AI's role in education and highlighting the need for broader engagement among educators, policymakers, and the community. In contrast, Chapter 8 focuses on diploma and post-graduate students, uncovering how their attitudes towards AI are influenced by social norms, language proficiency, and their understanding of AI technologies, framed by planned behavior theory. Overall, Section 2 underscores the necessity for collaborative efforts within educational institutions to effectively integrate AI tools while addressing the varied perspectives of stakeholders, learners, and educators.

Section 3 (Chapters 9–15) explores the implementation of AI tools in language education, detailing their benefits and limitations. Chapter 9 highlights AI's role in enhancing intercultural competence within flipped curricula, constrained by English-speaking trainer dominance. This chapter will be particularly useful for educators seeking to improve students' communicative and linguistic competences. It may provide valuable insights and suggestions for effectively incorporating AI tools into language education. Pan in Chapter 10 highlights the potential of machine learning in language learning, focusing on the innovative app "TalkToMe," which aims to enhance speaking skill. Its success relies on collaboration between educators and AI experts to ensure alignment with students' needs and addresses ethical concerns. A thorough evaluation of TalkToMe's effectiveness is crucial for validating its impact and identifying areas for improvement, ultimately offering insights into how technology can make learning more dynamic and engaging.

Chapter 11 and 12 focus on the integration of AI tools like ChatGPT in language education for German and Arabic. Chapter 11 discusses ChatGPT's potential to enhance creativity while acknowledging its limitations, offering strategies for effective use. In contrast, Chapter 12 emphasizes experiential learning through tools like "MapFight" and "Comic Factory," fostering student engagement and emotional connections. Both chapters lay the groundwork for educators to redesign curricula to incorporate sustainability, global challenges in their curriculum, and enhance students' creative writing skill.

Chapter 13 presents a workshop designed to enhance university students' academic writing skills, using ChatGPT, framed within the Analysis, Design, and Evaluation (ADE) model. The workshop successfully improved students' understanding of AI's benefits for writing mechanics and ethical considerations, emphasizing the importance of crafting effective prompts. This study advocates for replication to ensure reliability and facilitate long-term AI integration in academic writing. Additionally, it parallels Vygotsky's sociocultural theory, which highlights the importance of collaborative learning and suggests that AI can offer personalized experiences designed to meet the unique needs of each student's Zone of Proximal Development (ZPD; Vygotsky, 1978).

Chapter 14 explores using ChatGPT as a translation tool for teaching Spanish grammar, promoting plurilingualism and enhancing meta and inter-linguistic awareness. While it fosters student autonomy

and an inclusive environment, challenges arise due to teachers' unfamiliarity with students' mother tongues and potential nuances lost in AI translations. Further analysis is needed to evaluate its effectiveness in diverse contexts. This chapter equips educators and researchers in multilingual settings to create a more inclusive class for students and help them enhance their interlinguistic awareness. The closing chapter introduces Learning Experience Design (LXD) as a method for integrating AI in language introduction, emphasizing constructivist and connectivist theories that utilize learners' prior knowledge. Pan advocates focusing on higher-order objectives from Bloom's Revised Taxonomy and highlights AI tools that encourage collaboration among educators, students, and AI developers. It shifts the focus from assessing AI effectiveness to customizing language courses to meet individual student needs.

This book offers a comprehensive analysis of the integration of AI tools in language education, providing a thorough understanding of the subject. By examining the implications, challenges, and perspectives of educators, stakeholders, and students regarding AI in language education, it serves as a valuable resource for those seeking to apply AI tools in their instructional practices. The book's significance is attributed to several distinct features. Firstly, it explores the global applications of AI tools, such as ChatGPT, and examines the interest and approaches of educators and institutions from diverse geographical locations, offering a broader understanding of AI's acceptance and implication in different contexts. Secondly, it provides a detailed analysis of the benefits of AI for enhancing personalized learning, aligning with established theories and frameworks such as cognitive loading and ZPD. Pan emphasizes shifting traditional teaching methods through the adoption of a learner-centered educational model, known as LXD. This approach prioritizes student-centered learning and represents a sound methodology for integrating AI into language instruction (Wei, 2023). By incorporating LXD and AI, educators can adapt their curriculum and better meet the needs of modern learners. Thirdly, it addresses all aspects of language teaching, including linguistics competence, intercultural and communicative competence, and discusses how AI can be integrated into language classes to enhance students' abilities. This comprehensive approach contributes to the vision that AI implication in language teaching should take into account all aspects of language. In addition, the book examines the potential of AI in areas such as curriculum design and its function in improving students' creative writing skills in a student-centered and collaborative environment. By enhancing cognitive and creative thinking skills, AI can help students develop their writing skills in fundamentally new ways. The book also offers a leading point for researchers and teachers working in a multi-lingual and multi-cultural environment by introducing the function of ChatGPT in enhancing students and educators' meta and inter-linguistic awareness. These higher-order skills are closely related to general cognitive development and literacy (Roehr-Brackin, 2024). I believe that this book offers valuable insights and practical suggestions for educators looking to integrate AI tools into their language instruction.

While the book provides considerable insights, there is a need for further research, particularly in regards to teachers' training courses and their familiarity with AI tools. Incorporating empirical research into this field would be advantageous as educators often do not have enough information regarding the most appropriate and standardized AI tools used for language instruction, many of which are not specifically designed for this purpose. Therefore, focusing on this area is of utmost importance. It is also essential to recognize the importance of collaborative learning opportunities, in addition to personalized learning experience. According to Vygotsky (1978), socio-cultural theory of learning emphasizes the benefits of collaborative learning, where groups of learners work together to solve problems or complete their task. This approach is central to the ZPD and highlights the potential for enhanced comprehension and retention when students work together with each other. In the next edition, it would be beneficial to include empirical research focused on the effectiveness of AI tools in supporting both personalized and collaborative learning approaches in language teaching.

I recommend this book, which provides a comprehensive collection of empirical research on the use of AI tools in language teaching and learning in various countries. It serves as an essential resource for researchers and educators in this area, offering valuable insight into both the benefits and limitations of AI in language teaching. The book presents a multifaceted perspective on AI and language learning, going beyond a narrow focus to provide a beneficial guide for educators wishing to redesign their curriculum and lesson plans. Throughout the book, Pan provides theoretical and methodological evidence to support the practical application of AI tools and underscore the need for ongoing analysis of their effectiveness. I believe that using this book would be an invaluable asset for educators seeking to keep abreast of the latest developments in AI and language teaching.

References

- Pan, F. (Ed.). (2024). *AI in language teaching, learning, and assessment*. IGI Global. <https://doi.org/10.4018/979-8-3693-0872-1>
- Rintaningrum, R. (2023). Technology integration in English language teaching and learning: Benefits and challenges. *Cogent Education*, 10(1), Article 2164690. <https://doi.org/10.1080/2331186X.2022.2164690>
- Roehr-Brackin, K. (2024). Measuring children's metalinguistic awareness. *Language Teaching*, 1–17. <https://doi.org/10.1017/S0261444824000016>
- Vygotsky, L. S. (1978). *Mind in society*. Harvard University Press. <https://doi.org/10.2307/j.ctvjf9vz4>
- Wei, L. (2023). Artificial intelligence in language instruction: impact on English learning achievement, L2 motivation, and self-regulated learning. *Frontiers in Psychology*, 14, Article 1261955. <https://doi.org/10.3389/fpsyg.2023.1261955>