



AI as supporting tool for the L2 Language Teaching

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Abstract

The introduction of Artificial Intelligence (AI) in language teaching can represent a significant innovation, with the potential to reshape both teaching practices and language learning. Current research on its use and impact remains limited and partly contradictory. Some studies suggest that AI, even without tutor support, can bring notable benefits to language learning [5][8][10]. However, other studies [4][6] highlight its limitations in providing feedback and its reduced ability to design tasks tailored to heterogeneous learners. Finally, recent studies seem to indicate that blended approaches, in which AI is combined with human tutoring, yield the most effective results [3][7][9].

This paper examines the blended use of AI at Centro Machiavelli, a school of Italian for foreigners in Florence. The study illustrates the innovations, advantages and limitations that this technology has brought into the school's teaching practices, within a context of high learner heterogeneity in terms of age, educational background, mother tongue, motivation, and country of origin.

The description of AI use by the school's teachers is divided into activities for oral/written comprehension, for improving expectancy grammar, and for oral/written production and dialogue. These applications of AI in the creation of teaching materials provide teachers with flexible and effective tools that enable them to design more inclusive, dynamic, motivating, and innovative learning pathways.

Keywords: *Language teaching, AI, innovative learning pathways.*

1. Introduction

Artificial Intelligence (AI) is profoundly transforming language education, providing tools for material generation, learning support, and personalized learning paths. Research in this field highlights remarkable potential but also significant limitations: chatbots and virtual tutors, for example, offer quick and versatile resources but struggle to reproduce the relational and communicative richness typical of a human teacher.

This paper critically reflects on the role of AI in language learning, describing the concrete experience of the Centro Machiavelli, where AI has been introduced as an additional support in the creation of teaching materials and activities. The goal is to show how AI's potential can fully emerge when integrated with pedagogical expertise, glottodidactic competence, and teachers' experience.

2. Theoretical Framework

Artificial Intelligence (AI) has had a disruptive impact on education and has strongly entered the ongoing debate on language teaching, where its potential applications range from the development of chatbots and virtual tutors to support for teachers in creating teaching materials.

In such an innovative context, it is nevertheless necessary to understand both the potential and the effectiveness of AI in educational use, as well as its gaps and limitations.

Research in this field – due to the novelty and breadth of the topic – is still limited and far from conclusive. On the one hand, AI is extremely fast in generating materials or providing feedback; on the other hand, it appears unable to adapt teaching to learners' age, educational level, and emotional state. Some studies argue that chatbots lack real understanding of human social relationships and that their language remains artificial and inauthentic, less complex and articulated than human language [4]. Moreover, as Godwin-Jones [4] points out, communication relies not only on words but also on gestures, tone of voice, and posture – elements that chatbots cannot yet replicate effectively.

Li et al. [6], in the article *"How Real Is AI Tutoring? Comparing Simulated and Human Dialogues in One-on-One Instruction"*, suggest that there are substantial differences between learner interactions with humans and with AI: "Our analysis reveals a fundamental difference in the interaction patterns of human and AI tutors. Human tutors predominantly utilized a 'question-response-feedback' loop, a method consistent with Cognitive Scaffolding theory that actively guides students in knowledge



construction and promotes critical thinking. In contrast, the AI agent adopted an ‘explanation-simplistic response’ pattern.”

The study also shows that interactions guided by human teachers are qualitatively superior to those with AI tutors, thanks to greater variety in questioning, longer and more complex utterances, and higher-quality cognitive feedback.

Nevertheless, studies on the effectiveness of AI in language learning are contradictory. Works by Huang & Mizumoto [5], Qiao Zhao [8], and Wei [10] suggest that AI use yields significant benefits for language acquisition.

An interesting study by Tasdelen and Bodemer [9], and Fabiano [3], compared results among students learning with a human tutor, with an AI tutor, and with a human tutor using AI. The best-performing group was the one taught by a human tutor supported by AI. Similar conclusions were reached by Yi Ma and Mingyang Cheng [7], who tested English learning in 150 Chinese university students, divided into three groups: the first taught only by AI, the second only by human tutors, the third by AI with human scaffolding. The third group performed best, suggesting that *“AI’s potentials in language learning are maximized when strategically integrated with human pedagogical expertise.”*

3. The Use of AI at Centro Machiavelli

The use of AI for educational purposes has become increasingly common in institutions dedicated to language learning and teaching. In the past two years, our school has started integrating AI into teaching practices, aiming to improve the quality of language education and to better address learners’ specific needs. This decision was based on an analysis of the characteristics and diversity of the students attending the institution. Learners of Italian at Centro Machiavelli are extremely heterogeneous in age, educational background, motivations, linguistic, and cultural origins. For this reason, both group classes and individual lessons – although nominally at the same language level – often differ in linguistic needs and require tailor-made materials.

Given these needs, integrating AI into the development of teaching materials quickly proved highly beneficial. To ensure adoption by all teachers, including those unfamiliar with such tools, in December 2024 an internal workshop was organized in two parts: the first introduced AI, and the second provided practical information on how to use AI to create materials and activities for students. The use of AI as a tool for creating teaching materials has proved advantageous in several respects. First, it significantly reduced teachers’ workload in lesson preparation, thanks to the ability to quickly generate texts, activities, and didactic materials. Previously, teachers either relied on L2 Italian textbooks, which did not always fully meet class needs, or created materials from scratch – a time-consuming process. With AI, activities tailored to specific classes can be generated with minimal time investment.

A second advantage lies in the possibility of producing personalized content, better aligned with students’ interests, needs, and proficiency level, thereby fostering a truly learner-centered approach. A further benefit, linked to personalization, is increased learner motivation and satisfaction: students perceive lessons as more engaging, relevant, and useful to their learning goals.

These benefits have led to progressively wider and more diverse use of AI in our school, applied to reading and listening comprehension as well as language production. The following sections illustrate the main ways in which AI has been employed at our institution, with concrete examples of teaching activities and observed outcomes.

4. Applications of AI in creating teaching materials

4.1. Comprehension

4.1.1. Creation and Use of Texts

In our school’s didactic organization, lessons often start from a text as the central activity to initiate the learning process. With AI, it is possible to produce a wide variety of texts and related activities, customized in terms of difficulty and topic for a given class. Providing AI with detailed input – such as theme, audience type, proficiency level, age, and average educational background—helps generate texts tailored to the group’s needs.

While text creation is not in itself innovative and can be done independently by any experienced teacher, AI brings a substantial time-saving benefit. Once a text is produced, chatbots such as ChatGPT, Gemini, or Claude can efficiently generate a large number of related activities: elicitation tasks, comprehension questions (open, closed, multiple-choice), comprehension grids (exportable as Excel files), or grammar exercises if required. Although these Chatbots are capable of producing



entire teaching units, in our practice teachers tend to request specific activities in response to learners' needs rather than relying on full AI-generated units.

4.1.2. Audio Implementation

Once created, texts can be presented either in written form or, thanks to AI advancements, in oral form. The simplest way is to request a reading from ChatGPT. Alternatively, free "text-to-speech" platforms (e.g., [luvvoice.com](https://www.luvvoice.com)) allow conversion into mp3 audio files. Such tools provide valuable support for listening comprehension, though they have limitations: synthetic voices may deviate slightly from standard Italian, and free versions cannot produce dialogues with multiple voices. Moreover, AI-generated texts (like most textbook texts) may lack authenticity. For this reason, these materials are mainly used at beginner or intermediate levels, while authentic texts are preferred for advanced learners.

4.1.3. Text Manipulation Activities

AI can also be used for traditional activities involving text manipulation, such as cloze tests or sequencing tasks (sentences, paragraphs, dialogue lines), which foster comprehension and grammatical expectancy. While not innovative per se, AI significantly reduces preparation time. However, when asking AI to provide missing words separately at the end of a cloze passage, transcription errors sometimes occur.

4.1.4. Visual Content Creation

The ability to generate realistic or stylized images via platforms like ChatGPT or Gemini has opened new opportunities. In the past, teachers relied on textbooks or online images (with copyright risks). Now, based on simple textual descriptions, teachers can create original images for flashcards, matching exercises, or elicitation activities.

4.2. Production and Dialogue

4.2.1. Interactive Role Plays

AI is also used in our school to develop materials that foster oral and written production as well as dialogue skills. A particularly effective activity—impossible without chatbots like ChatGPT—is interactive role play simulation. ChatGPT can engage in oral exchanges, simulating situational role plays at various proficiency levels (structured, semi-structured, or free). The difficulty can be adjusted to the learner's level. Role plays can be carried out in class or independently at home. While engaging and effective, chatbot responses may sound stereotyped and less natural compared to those of native speakers.

4.2.2. Image-Based Activities

Through AI, teachers can now create images tailored to a class's needs and use them as prompts for oral or written production. These images can support classical activities such as picture description or serve as starting points for discussions.

4.2.3. Debates with AI

Another application is organizing debates where the class debates collectively against an AI interlocutor. This approach brings two key benefits: (1) it strengthens class cohesion, as students unite against an "external" debater, and (2) it reduces learners' affective filters, since they are interacting with a non-human counterpart.

5. Conclusions

The ongoing experience at Centro Machiavelli demonstrates that integrating AI as a support for foreign language teachers can bring significant benefits to both staff and learners. These benefits are maximized when AI strengthens teachers' competencies without replacing their central role in the educational process.



Implementing AI in our school has led to tangible, observable advantages: reduced teacher workload, increased availability of personalized materials for heterogeneous classes, enhanced learner motivation thanks to engaging and targeted materials, and overall professional growth of the teaching staff.

It is, however, crucial to acknowledge AI's limitations. As observed in practice and confirmed by research, chatbot oral production remains somewhat unnatural, with difficulties in handling complex role plays and with non-standard accents. Texts can be stereotyped, and errors may arise when they are manipulated or reworked.

Teacher training emerges as a decisive factor for the effective use of AI and the creation of motivating, high-quality lessons, confirming the importance of investing in professional development. Ultimately, the potential of new technologies can only be fully realized when used by teachers equipped with strong pedagogical foundations and glottodidactic competence.

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