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ORIGINAL

Generative chatbot-based artificial intelligence: a reflection from a sociodiscursive interactionism perspective

La inteligencia artificial generativa de tipo chatbot: una reflexión desde el interaccionismo sociodiscursivo

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ABSTRACT

This study analyzes the educational impact of generative artificial intelligence, particularly chatbots such as ChatGPT, in key areas such as assessment, personalized learning, and text production. Based on an empirical approach tested through *feedback* on ten texts written by primary school students, the study addresses issues related to the differences between human and AI-generated writing, information management, the teaching of text genres, and the promotion of plurilingualism. The results show significant potential in text generation and correction, linguistic mediation, and autonomous practice, although limitations are also identified in contextual understanding, linguistic nuances, and creativity. The study highlights benefits such as the creation of personalized materials and metalinguistic reflection, but also warns of risks such as technological dependence and plagiarism. It concludes that these tools can enrich education if integrated in a critical and pedagogically guided way.

Keywords: Generative Artificial Intelligence; Educational Chatbots; Text Production; Formative Assessment; Plurilingualism; Linguistic Mediation.

RESUMEN

Este estudio analiza el impacto educativo de la inteligencia artificial generativa, en particular de los chatbots como ChatGPT, en áreas clave como la evaluación, la personalización del aprendizaje y la producción textual. A partir de un enfoque empírico experimentado con *feedback* a partir de diez textos de alumnos de primaria, se abordan cuestiones relativas a las diferencias entre la producción humana y la de la IA, la gestión de la información, la enseñanza de géneros textuales, y el fomento del plurilingüismo. Los resultados muestran un notable potencial en la generación y corrección de textos, la mediación lingüística y la práctica autónoma, aunque también se identifican limitaciones en la comprensión contextual, en los matices lingüísticos y en la creatividad. Se destacan beneficios como la creación de materiales personalizados y la reflexión metalingüística, pero también se advierten riesgos como la dependencia tecnológica o el plagio. Se concluye que estas herramientas pueden enriquecer la educación si se integran de forma crítica y pedagógicamente orientada.

Palabras clave: Inteligencia Artificial Generativa; Chatbots Educativos; Producción Textual; Evaluación Formativa; Plurilingüismo; Mediación Lingüística.

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INTRODUCTION

It is not easy to write about artificial intelligence without falling into a double temptation. On the one hand, fascination is aroused by its computational capabilities and the amazement at the results it is already producing. On the other hand, there is the fear of what it might mean for the future of humanity, which many voices link to a possible disappearance of critical thinking, creative work, or even human bonds.

Beyond these two extreme positions—blind enthusiasm and defensive rejection—this text takes a third approach: the question. Not so much about what artificial intelligence *does*, but about what *it does to us*. How it transforms our habits, our practices, and, above all, our relationship with language. Because, if anything defines us as a human, it is precisely that the capacity to construct worlds through words, to symbolize, to describe the world and to describe ourselves. If language changes, so too does the way we think, learn, teach, and recognize ourselves as a community.

In this sense, the relationship between artificial intelligence and education cannot be approached solely from a technical or instrumental perspective. It is true that AI offers powerful tools for personalizing learning, automating tasks, or generating instructional materials. However, the deeper challenge lies not in *what* it can do but in how and *for what purpose* we use it. In addition, that compels us to reexamine our conceptions of language, knowledge, and the very act of teaching.

Linguistics, as the science of language, can provide some fundamental insights for this debate. In particular, schools of thought that emphasize the social, historical, and cultural dimensions of language—such as the work of Lev Vygotsky or the linguistics of meaning developed by Eugenio Coseriu—invite us to understand communication not as a simple exchange of data but as a situated construction laden with shared values, intentions, and contexts.

From this perspective, language is neither a neutral code nor a transparent tool. It is a complex human activity linked to experience, affectivity, memory, and imagination. It is, in short, a way of life. If we accept that teaching is not simply about transmitting information but about accompanying processes of meaning-making, then the emergence of AI raises the following decisive questions: Can a machine understand meaning? Can it create statements with educational value without participating in a community of interlocutors? Can it replace pedagogical dialog, which is always contingent, embodied, and ethically oriented?

These questions cannot be resolved with data or technical demonstrations. They demand critical reflection, interdisciplinary dialog, and a clear awareness of what is at stake: the place of the human being at the heart of the educational process.

From this perspective, language is neither a neutral code nor a transparent tool. It is a complex human activity linked to experience, affectivity, memory, and imagination. It is, in short, a way of life. As Eugenio Coseriu has emphasized, "to speak is always to speak within a culture and from a tradition," which implies that the meaning of utterances is not exhausted by their formal structure but rather depends on the historical and communicative context in which they are embedded.[1]

In this same vein, Lev Vygotsky noted that language is the fundamental mediator of thought and cognitive development. His theory of the zone of proximal development (ZPD) shows that meaningful learning occurs through social interaction when a more competent individual, such as a teacher, accompanies and guides the learner in the construction of new meanings. This profoundly human process is permeated by the affectivity, intentionality, and ethics of the educational relationship.

Therefore, if we accept that teaching is not simply about transmitting information but rather about accompanying processes of meaning-making, the emergence of artificial intelligence raises decisive questions: Can a machine comprehend meaning in its full semantic and existential richness? Can it create statements with educational value without participating in a community of interlocutors? Can it replace pedagogical dialog, which is always contingent, situated, and ethically oriented?

These questions cannot be resolved solely with data or technical demonstrations. They demand critical reflection, interdisciplinary dialog, and a clear awareness of what is at stake: the human being's place at the heart of the educational process. With respect to where the centrality of meaning—and with it, language as a cultural act—is forgotten, we run the risk of reducing education to a mere technical operation or the management of informational resources, ignoring its formative, critical, and emancipatory dimension.

In this article, we adopt a critical yet open stance toward the use of generative artificial intelligence in the educational sphere, especially in language teaching. We start from the conviction that these technologies, far from being neutral, are imbued with social, cultural, and political dimensions that must be analyzed from solid epistemological frameworks such as sociodiscursive interactionism.[2]

From the perspective of sociodiscursive interactionism, interactions with AI tools in research, teaching, and learning must be understood as situated practices that are laden with meaning and anchored in specific social contexts. This approach allows us to analyze how individuals position themselves in relation to technology, how they negotiate meanings, and how they participate in the construction of knowledge through AI-mediated discursive genres. Thus, it reinforces the need for a critical and contextual perspective that recognizes the active role of learners and teachers in technologically mediated communicative processes.

In this sense, the aim is not to reject or idealize AI but to understand its possibilities and limitations to integrate it in a reflective and pedagogically grounded manner into language teaching and learning processes. We pose two research questions: *a)* How can generative chatbot-type AIs contribute to the didactic analysis of textual genres and to the teaching of their use in real-world communication contexts? ; and *b)* What challenges and limitations does the use of artificial intelligence present in language teaching and learning from the perspective of sociodiscursive interactionism?

THEORETICAL FRAMEWORK

The theoretical framework of this article focuses on the interrelationship between artificial intelligence (AI), language, and education. AI has emerged as a transformative tool in various fields, and its impact on education—specifically on language learning—raises both possibilities and ethical and pedagogical concerns that need to be thoroughly explored.[3,4]

The emergence of AI in the educational context cannot be understood without a theoretical foundation to guide its use. From the perspective of sociodiscursive interactionism (SDI), it is emphasized that language is a situated activity that reflects human experiences; therefore, technological mediation must take this background into account. Vygotsky's emphasis on language as fundamental to cognitive development resonates here, providing a framework that underscores the importance of social interaction in learning. AI can contribute to this process by offering tools that facilitate personalization and adaptation to the learner's context.[4]

AI does not merely act as a technical resource; it must be understood as a semiotic tool that transforms the way students interact and construct knowledge. In accordance with Coseriu's conception of language, the role of AI in language learning must be situated within the interplay between repetitions, the norm, and the linguistic system. An analysis of how AI collects linguistic data and patterns reveals its capacity to contribute to the teaching of text genres but lacks the human and contextual components of learning.[4]

The ethical implications of using AI in education are unavoidable. There are concerns about how the excessive use of these tools may lead to a delegation of cognitive responsibilities away from students.[3] This raises issues of academic and critical integrity, as students may become passive consumers of information rather than active agents in their learning. Student autonomy and the construction of meaning must be fostered in light of the risk that AI may encourage plagiarism or depersonalization in language learning.[5]

When addressing the pedagogical applications of AI, it is vital to focus on how these tools can be used to enrich the learning experience while avoiding associated risks. Recent studies indicate that the critical use of AI can create more inclusive and adaptive learning environments.[4,5] Therefore, educational practices that facilitate the critical use of AI and promote metalinguistic reflection and collaborative learning are needed.[3,6] Instructional proposals must consider the capabilities of AI tools while preserving the centrality of the human process in learning.

Although AI can play a significant role in education, practices that rely excessively on AI can lead to the impoverishment of strategic competencies among students.[7] Therefore, a balanced educational approach that integrates technology in a way that enhances learning without replacing human interaction and critical reflection is needed.[3,7]

Coseriu and AI: Repetitions, Norm, and System

It is pertinent to ask what the difference is between the way artificial intelligence collects information statistically and the concepts of repetition, norm, and system proposed by Eugenio Coseriu, a linguist fundamental to the comprehensive understanding of language within epistemological frameworks such as sociodiscursive interactionism.

Artificial intelligence, particularly in the fields of machine learning and natural language processing, involves the collection and analysis of large amounts of data using statistical methods. It employs algorithms to identify patterns, correlations, and trends in vast linguistic databases. This approach is essentially quantitative and is grounded in the probability of occurrence of certain linguistic structures or lexical usages on the basis of their frequency in the data corpus. In this way, AI learns from examples, optimizing its models to predict or generate texts on the basis of the probabilities extracted from that data.

For his part, Coseriu proposes a conception of language that is articulated across three interrelated levels: repetition, norm, and system. *Repetitions* refer to the concrete and specific use of language in particular communicative situations, including individual and occasional variations; this level approximates the empirical data of actual linguistic use.

The *norm* constitutes a set of conventions and shared practices within a linguistic community, which guides the appropriate use of language and is the product of socialization and education. It should be clarified that the Coserian *norm* is not the same as the prescriptive norm we generally know but rather a living and dynamic convention inherent to collective use, not to normative imposition.

Although AI is based on repetition, some advanced approaches (such as *fine-tuning* in specific cultural contexts) can model an "emergent statistical norm." It is not the norm in the human and Coserian sense, but it does merit critical consideration: to what extent can a machine simulate the norm through patterns?

Finally, the *system* encompasses the underlying structure of language, including the grammar and vocabulary potentially available to speakers; this is the most abstract and general level.

The essential difference lies in the fact that while artificial intelligence focuses on the collection and statistical analysis of repetitions (that is, the actual use and observable frequency of linguistic structures), Coseriu's model emphasizes the importance of understanding language as a phenomenon that arises from the dynamic interaction between repetitions, norms, and systems. This holistic approach acknowledges the complexity, variability, and social, cultural, and individual factors that shape language use—aspects that go beyond mere statistical frequency.

Consequently, although artificial intelligence is highly effective in analyzing large volumes of linguistic data and in identifying and reproducing patterns of use, Coseriu's proposal reminds us that language is also a human phenomenon deeply marked by social, cultural, and normative dimensions, which must be considered for a full understanding of the communicative act.

Vygotsky and AI as a Semiotic Tool: Mediation, Learning, and Limits in Language Teaching

At the ISD, we start from the following premise: if textual genres are tools for human activity, artificial intelligence can function as an instrument for accessing, transforming, and reflecting on these genres. This idea reinforces Vygotsky's notion of the semiotic tool, insofar as AI can mediate between the subject and school-based discursive practices, facilitating processes of progressive appropriation. However, it should be emphasized that this mediation only acquires true socioconstructivist educational value when integrated into a framework of meaningful interaction among individuals.

For these reasons, learning essentially depends on cooperation among people in culturally rich contexts, and AI cannot replace

the joint activity of constructing social meaning. Hence, three key elements are important within this article: the role of genres as cultural instruments, text-based instructional sequencing,[8] and the indispensable role of the teacher as a human mediator in technology-mediated teaching–learning processes.

From the Vygotskian perspective, semiotic tools refer to any type of sign, symbol, word, or device used in the process of human thought to mediate and control both social behavior and individual cognitive development. These tools include language, numerical systems, maps, drawings, writing, and other symbolic systems and cultural signs. It is evident that artificial intelligence technology can be considered a set of semiotic tools with mediating capacity.

Vygotsky highlighted the importance of these tools in mediating between individuals and their social and cultural environment. He argued that cognitive development is deeply influenced by social interactions and the cultural media through which the individual learns and communicates. In this context, it is worth asking the following question: What kind of mediation does a tool such as ChatGPT enable? How can it facilitate learning? What are its limits in the internalization of information processing, reading comprehension, and textual production? On the social level, what possibilities and limits does it present for collaborative learning?

These questions, already addressed in our exploration and requiring an empirical approach in the coming years, can begin to be answered through a structured analysis in three complementary stages described below.

First, AI allows us to characterize the text genres and predominant teaching models in a given corpus, owing to the establishment of clear criteria for textual analysis. Through this systematization, both regularities and specificities can be observed, enabling us to compare students' work with that of families of reference texts. This analysis not only offers an overview of language use at different educational levels but also lays the groundwork for critical reflection on pedagogical practices and the appropriateness of the proposed models.

Second, the analysis of student work using AI allows for the rapid and accurate identification of both their competencies and their recurring errors and obstacles. This enables the design of differentiated intervention strategies, tailored not only to the type of difficulty observed but also to the student's age, developmental level, and profile. The tool thus becomes a valuable aid for formative assessment, providing personalized guidance to help teachers plan their instruction.

Finally, once the two previous stages—textual characterization and pedagogical diagnosis—have been completed, AI can contribute significantly to the development of instructional sequences and materials tailored to each class group on the basis of their specific needs. This capability is particularly valuable for addressing diversity, organizing flexible learning pathways, and fostering more inclusive, meaningful, and effective teaching.

From the perspective of the Theory of the Zone of Proximal Development (ZPD), these functions of AI take on full meaning: By enabling a more refined diagnosis and better-targeted mediation, the tool helps design more tailored scaffolding, assisting the learner in advancing their development with greater autonomy and purpose. However, all of this is possible only if the use of AI is guided by a clear pedagogical intent, avoiding its purely instrumental or automatic use.

In the field of language teaching, this means not reducing interaction to mere mechanical error correction but rather harnessing AI's potential to generate qualitative *feedback*, real-time feedback, and suggestions for progressive improvement that respect the learner's cognitive process. Current functions of generative AI include, for example, the initial evaluation of written texts; the detection of lexical, spelling, or grammatical errors; and suggestions for improvements in cohesion, coherence, and textual appropriateness. All of this allows teachers to focus on more complex aspects of teaching and to guide the process more effectively.

However, the risks of rote learning and cognitive offloading must be prevented in the use and misuse of AI by students. If students limit themselves to requesting automatic answers to their questions without engaging in the processes of comprehension, reformulation, and revision, AI can become an obstacle rather than a help. That is why work with these tools must be carefully mediated by the teacher, who guides their use and ensures their integration into a rich and contextualized learning process.

In the oral domain, advances in speech recognition, such as Whisper (integrated into the ChatGPT-4 app version in 2024), open up new possibilities for practicing oral interaction and pronunciation. This technology allows students to simulate conversations and receive expressive and phonetic corrections, diversifying the reference models. Even so, the development of tools for oral production and comprehension remains less advanced than in the written domain.

METHOD

This qualitative study is grounded in the epistemological framework of sociodiscursive interactionism (SDI)[9,10,11] and analyzes the use of generative artificial intelligence, specifically ChatGPT-4,[12] in the language classroom. This research is based on the observation of interactions between students, teachers, and the AI tool from a discursive perspective that views language as a situated, historical, and socially mediated activity.

Although qualitative analysis of the results predominates, the exploration involves a technical use of AI in the aspects we discuss in the methodology, although one of the limitations of research on generative AI is the impossibility of directly observing which internal processes produce a specific result; thus, we could use the metaphor that we are in a *behaviorist* stage in research on AI's *thought processes*.

Data collection for this exploration was based on ten essays written by fifth-grade students and was based on the prompt "Write an essay about your vacation." The essays were analyzed with ChatGPT-4 using a single *prompt*, and the generated responses were recorded to conduct a qualitative analysis of *the feedback* provided by the AI. The selected students are… The school is a public school in the Plana region.

An analysis was conducted of the AI's corrections and *feedback* on the students' writing tasks, focusing on specific linguistic criteria: adherence to academic and social text genres, discursive organization, and linguistic and multimodal resources, as well as

markers of subjectivity, cohesion, and coherence.

The *prompt* provided to the machine for this task was as follows: "Evaluate and provide an overall summary of the results for the following 10 essays written by 5th-grade students in response to the prompt 'Write an essay about your vacation,' based on the following criteria: adherence to the academic text genre, discourse organization, linguistic and multimodal resources, and markers of subjectivity, cohesion, and coherence." We want to verify whether this *prompt* allows us to identify both developed skills and recurring errors and obstacles in the learning process.

Moreover, we have worked on the didactic modeling of the text genres involved, with the aim of designing proposals for instructional sequences that critically and creatively integrate the use of generative AI tools. These proposals include concrete guidelines for classroom work, especially in multilingual contexts, and are geared toward developing competencies in metalinguistic reflection, autonomous text production, and critical awareness of discourses, although we do not present this second part in the present article. We therefore base our observations on these practices.

RESULT

In this section, we present the preliminary results of a small teaching experiment with ChatGPT 4, as described in the methodology section. First, a specific *prompt* was entered into the ChatGPT tool, along with a set of ten essays written by fifth-grade students. The system generated a table of scores associated with these essays on the basis of explicit evaluation criteria. When these scores were compared with the evaluations performed manually by the teaching team, a high degree of agreement was observed. This can be seen in table 1.

Table 1. Scores for the 10 essays by fifth-grade students assigned by ChatGPT 4

Student	Appropriateness to genre (0-2)	Discursive organization (0-2)	Linguistic and multimodal resources (0-2)	Cohesion and coherence (0-2)	Subjectivity and style (0-2)	Total score (0–10)
Student 1	2	2	2	2	2	10
Student 2	1	1	1	1	1	5
Student 3	2	1	1	1	2	7
Student 4	2	1	1	1	2	7
Student 5	2	2	2	2	2	10
Student 6	2	2	2	2	2	10
Student 7	2	2	2	2	2	10
Student 8	2	2	2	2	2	10
Student 9	2	2	2	2	2	10
Student 10	1	1	1	1	1	5

These findings suggest that, in controlled contexts, AI can provide value as a support tool in the diagnostic phase of written assessment. Indeed, various experts have already highlighted ChatGPT's potential for generating assessment rubrics. In our case, the data obtained from this initial automatic grading served as the basis for developing a general rubric for this type of written assignment—also generated by AI—which is presented in table 2.

Table 2. Essay evaluation rubric generated by ChatGPT 4 is based on the *prompt* and the 10 student essays

Criterion	2 points (High level)	1 point (Medium level)	0 points (Low level)
1. Suitability for the school essay genre	The text fully conforms to a school-style, descriptive, or narrative composition.	There is an attempt at appropriateness, although the purpose or register is unclear.	The text type is not identifiable or does not meet the assignment requirements.
2. Organization of the text	There is a clear structure (introduction, body, and conclusion).	Parts of the text are recognizable, but there is some disorganization.	The text is disorganized or lacks a recognizable structure.
3. Linguistic and multimodal resources	Varied and appropriate use of vocabulary and expressive resources (including drawings or other codes).	Limited but understandable use of linguistic and/or multimodal resources.	Poor vocabulary or errors that hinder comprehension. No multimodal supports.
4. Textual cohesion and coherence	Ideas well connected through connectors and logical thematic progression.	Some relationships between ideas, using basic connectors.	Disconnected sentences or frequent shifts in topic.
5. Subjectivity and personal style	The text clearly expresses emotions, opinions, or personal assessments.	Presence of some personal judgment or subjective adjectives.	Impersonal text, with no signs of subjectivity or personal style.

Although the generated rubric could have included a greater gradation in the scores—beyond the 0-1-2 ternary system—as well as more detailed descriptors, we consider the result to remain valid and potentially useful as a teaching support tool in our context. Its basic structure allows for easy adaptation and refinement of its sections according to the specific needs of the class group or specific curriculum objectives.

To examine the AI's ability to generate corrective *feedback* in greater detail, we selected one of the essays (number 4), which received an intermediate score, and asked the tool to generate an evaluative comment for the student. This essay is reproduced in figure 1, while the AI-generated *feedback* can be found in figure 2.

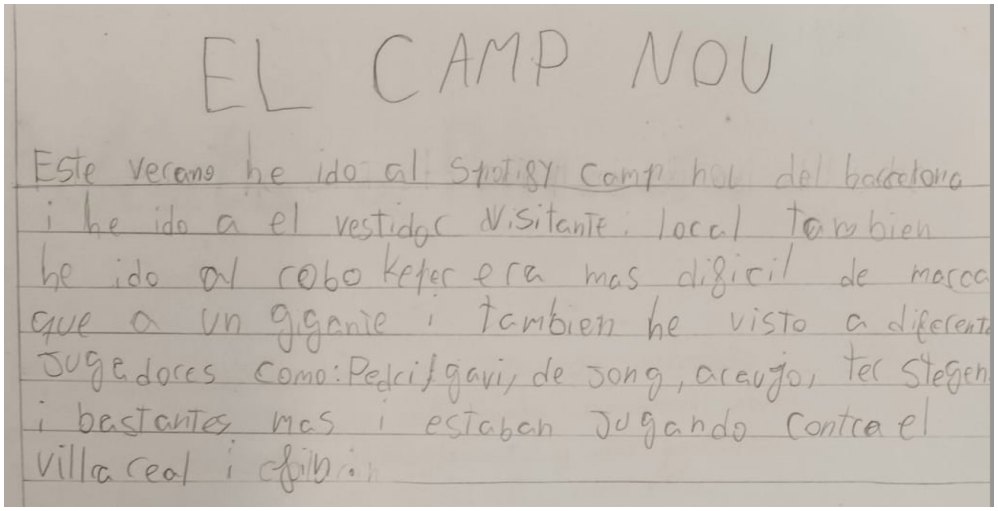


Figure 1. Sample of Essay 4, for which we asked ChatGPT 4 to generate *feedback* for the student.

A qualitative analysis of this *feedback* (figure 2) allows us to highlight several relevant elements. First, we observe that the feedback is phrased in a motivating tone, appropriate for the comprehension level of a fifth-grade student, and sufficiently specific in identifying particular errors. Despite a certain bias toward positivity—characteristic of this tool in its default settings—the message contains aspects of pedagogical interest: it highlights the main errors grouped by type and concludes with a suggestion that encourages the student to continue improving, opening the possibility of establishing a teacher-guided scaffolding process.

Great job on your essay about Camp Nou! Here are some observations and suggestions to further improve your writing:

What you did very well:

✅ **Clear and personal topic**: You enthusiastically described your experience at Camp Nou, and it shows. It's clear that it was an exciting moment!

✅ **Genre elements**: You wrote a first-person text, telling us what you did, what you saw, and what you liked. Very appropriate for an experience essay!

✅ **Final drawing**: The drawing is simple but helps complete the story. This type of multimodal resource is very useful in this kind of assignment.

Areas for improvement:

1. **Spelling and grammar**
   - In some cases, you wrote "a el" when it should be "al" (for example, *"I went **to** the visitors' locker room"*).
   - You also wrote *"robo keta,"* but it's not clear what that means. Did you mean *"robo-kicker"* or something similar? You can clarify or correct it.
   - Some proper nouns should be capitalized (*Villarreal*, *Camp Nou*, *Barcelona*).
2. **Text Organization**
   - Try to separate your ideas more clearly using semicolons. In your text, many sentences are connected with "and," and that can make it hard to read.
   - For example, you could write: *"This summer I went to Barcelona's Camp Nou stadium. I went to the visitors' locker room and the home team's locker room. I also went to the kicker machine…"*
3. **Connectors**
   - You can use connectors like *"afterward," "then," "also," and "finally"* to make the text more cohesive. For example: *"After that, we saw the players, and in the end, they were playing against Villarreal."*
4. **A more polished conclusion**
   - Although you wrote "END," you could write a final sentence that summarizes how you felt. Something like: *"It was an experience I loved, and I'd like to go back."*

In summary:

- Your essay has very interesting and personal content.
- With a few improvements in punctuation, transition words, and spelling, it could be excellent!
- Keep writing with that enthusiasm!

If you'd like, I can help you rewrite it together for practice. Would you like that?

Figure 2. *Feedback* generated by ChatGPT 4, adapted for the student in Essay 4
Source: ChatGPT.

In summary, this preliminary experiment demonstrates how the use of artificial intelligence can contribute to the development of assessment tools (rubrics) and the generation of personalized *feedback*. In no way do we propose replacing the role of the teacher, especially when dealing with minors, but rather valuing these tools as complementary support can facilitate the personalization of teaching, the diversification of assessment strategies, and the improvement of educational processes through critical and professional mediation by teachers.

Given that AI incorporates a large portion of past texts, it holds the potential for the sedimentation of historical social discourses. Current generative AI platforms such as chatbots are tools of semiotic mediation, whose modes of intellectual operation merit study to understand the processes of information processing, interpretation, and textual production that enable interaction with the machine.

When ChatGPT 4 was asked about the most common situations of human-AI interaction, it responded as follows: *a)* general information search; *b)* cultural and travel recommendations; *c)* conversation assistance for language learning; *d)* emotional support and specialized advice; *e)* consultation on specialized topics, particularly in the academic, programming, or technology fields; and *f)* translation, proofreading, and rewriting of specific text genres.

Limitations of AI Use in Language Teaching from a Sociodiscursive Interactionist Perspective

Although the results obtained in this initial exploration are promising, it is necessary to acknowledge that the corpus of analysis, limited to ten essays from a single fifth-grade class, limits the generalizability of the conclusions. Furthermore, the *feedback* provided by the tool exhibits certain structural biases, such as a tendency to avoid explicit negative evaluations or to offer generic recommendations, which must be subject to critical scrutiny.

Furthermore, automated assessment depends heavily on the precise wording of *the prompt*. Minor changes in wording can significantly alter the quality and focus of AI-generated analysis, which requires metalinguistic and technical competence on the part of teachers, thereby reinforcing the need to accompany the use of these tools with specific training and rigorous pedagogical reflection, especially within the framework of sociodiscursive interactionism. The limitations listed below are not mere theoretical conjectures but emerge from the empirical and reflective analysis of specific practices in various educational contexts.

First, the excessive delegation of learning processes. When AI tools replace the learner in key tasks such as planning, writing, or revising texts, there is a risk of excessive delegation of learning processes. This practice can hinder the progressive development of discursive skills, transforming the student into a passive user dependent on external solutions.

Second, the encouragement of plagiarism or uncritical reproduction. In certain contexts, the inappropriate use of AI tends to reinforce the habits of copying or reproduction without critical reworking. This phenomenon is particularly concerning in written production tasks, where the pedagogical goal should be to promote authorship, creativity, and critical reflection on genres and communication situations.

The third limitation is the risk of cognitive atrophy due to the systematic outsourcing of tasks that require cognitive effort. The constant outsourcing of comprehension, idea selection, textual organization, and stylistic revision can lead, in the medium term, to a form of cognitive atrophy. Instead of developing problem-solving strategies, students become accustomed to obtaining immediate results without truly mastering the processes.

The fourth limitation relates to the simulation of communication situations, without real awareness of the form or meaning of the text produced. Although simulation can be a valuable tool for learning, when it is not accompanied by explicit reflection on the pragmatic conditions and discursive genres involved, it becomes an empty exercise. Following Baudrillard[13], this is a form of reproduction without a referent that severs the link to real communicative experience.

Fifth, the automation of revision and rewriting without awareness is among the most significant risks of the mechanical use of text-correction functions, without the conscious identification of learning obstacles, either on the part of the students or the teacher. This automation, which often overlooks both didactic factors (linked to the student's actual knowledge) and epistemological factors (related to the teacher's frames of reference), prevents the genuine mastery of linguistic norms and discursive mechanisms across different genres.

These limitations, identified in the analysis of real-world practices presented in the methodology of this article, show that the teacher remains a central and irreplaceable figure in mediating between technological tools and meaningful learning. The need for tools that support both the assessment of student competencies and the design of materials adapted to diversity is evident. However, as Dolz et al.[14] already warned, an overly technical and decontextualized approach risks diminishing the educational value of schooling, prioritizing procedures over content and technicalities over deep understanding.

Ultimately, between the utopia of an education revolutionized by artificial intelligence and the dystopia of dehumanized learning, there is room for the critical, creative, and balanced exploration of these tools. Only through contextualized practices and sound pedagogical reflection will it be possible to define relevant uses that respect the humanistic purpose of language teaching.[15,16]

CONCLUSION

The critical exploration we have conducted regarding the use of generative artificial intelligence tools in language teaching, particularly ChatGPT 4, highlights three major axes of analysis: first, these tools' attempts to emulate human traits; second, the new forms of techno-discursive interaction between humans and machines; and third, the pedagogical potentialities emerging from this new digital environment.

On the basis of the systematic observation of real-world practices and the discursive analysis of interactions, we conclude that generative AI does not constitute a form of intelligence in the human sense, as Crawford has already noted, but rather an algorithmic

macrotool that operates on historical and social linguistic patterns. From the perspective of sociodiscursive interactionism, these interactions take on a particular discursive configuration, marked by formulation norms that determine the type of response generated. This configuration warrants a more in-depth and systematic study, especially in relation to *prompts* as acts of enunciation that mediate artificial textual production.

The need for active collaboration among AI developers, teachers, and researchers becomes urgent in order, on the one hand, to analyze modes of technodiscursive interaction in multilingual contexts and, on the other hand, to design materials and activities that critically leverage these tools in language teaching. While the functional multilingualism of AI can enrich learning processes, doubts remain regarding its ability to match the semiotic, cultural, and affective richness of human interaction.

In this context, the research questions posed have yielded provisional answers. With respect to the nature of interaction with AI, we identified a form of techno-socioconstructivist dialog that, although it simulates human conversation, responds to algorithmic rather than intersubjective logic. With respect to its advantages and limitations, we have identified valuable contributions in terms of accessibility, personalization, and efficiency but also significant pedagogical risks: the excessive delegation of cognitive tasks, the automation of review without critical awareness, and the promotion of uncritical reproduction practices. These limitations were confirmed in the analyzed experience, especially in cases where students used AI as a substitute rather than a mediator. Similarly, reliance on *prompts* and the tendency toward overly positive responses that are poorly aligned with actual errors reinforce the need for constant teacher mediation.

With respect to student autonomy and development, generative AI can be an effective tool for those who have already mastered academic genres and know how to formulate their objectives. However, it can discourage metalinguistic reflection and the cooperative construction of knowledge if it is not critically integrated into well-designed teaching strategies. Therefore, we propose a creative, situated, and reflective use of these technologies, aimed at strengthening the processes of textualization and interaction, rather than their mechanical replacement by automated devices.

We also caution that these technologies do not operate in a social or ideological vacuum. As Crawford reminds us, the narrative of balanced collaboration between humans and machines can obscure asymmetrical power relations. The recent attribution of military decisions to AI in conflict contexts, such as in the context of the genocide against Gaza, illustrates how human abdication of responsibility can be supported by false technical neutrality. From a historical materialist perspective, we consider it essential to take these implications into account when AI is integrated into the classroom.

Similarly, we emphasize the importance of establishing clear ethical and regulatory frameworks, such as those recently proposed by UNESCO[17], the Spanish Ministry of Education, and the European Union, to protect especially the most vulnerable groups, such as children, from overexposure to screens and potentially harmful effects on their development.

In conclusion, we recognize the potential of AI to improve language learning, especially in adult education or in inclusive education settings. However, we reject both the utopian vision of fully automated teaching and the dystopia of dehumanized education. Instead, we propose a practice-based approach that critically assesses the role of these tools as mediating devices. In the coming years, it will be necessary to conduct longitudinal research analyzing the actual impact of AI-mediated teaching approaches on the development of oral skills, writing, interaction, and metalinguistic reflection. This raises new questions that should guide future research:

- What benefits does engaging in activities mediated by this macrotool bring at different educational levels?
- Which language learning tasks should be delegated to AI, and which should not?
- How can its use in the classroom be managed without undermining human interaction or student autonomy?

Answering these questions will be crucial for defining sustainable educational policies and teaching approaches centered on the full, critical, and ethical development of learners in an increasingly digitized world.

In future research, we consider it a priority to expand the sample and compare results across different educational levels and languages of instruction, as well as to analyze in greater detail the forms of interaction between teachers, students, and machines. Similarly, it will be necessary to explore teaching strategies that foster a critical appropriation of generative artificial intelligence by students, not merely as recipients of corrections but also as conscious and reflective producers of their own discourses.

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CONFLICT OF INTEREST

None.

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