

# **Toward Effective Strategies for Using AI in Language Learning**

## **Abstract**

Artificial Intelligence (A.I.) and more specifically Large Language Models (LLM) are powerful tools to speed up language learning. It can improve self-learning abilities but also poses some dangers for the student when misused. It is necessary to identify those risks and develop awareness and techniques to counteract them.

Chatbots agents operated by A.I. technology have made a powerful entrance into every field of knowledge. Everyone is eager to find ways to incorporate them into their own work environment. The world of education is no exception. Teachers use A.I. to develop new materials or to analyze the progress of a class. Students, too, increasingly turn to different A.I. tools for their everyday tasks. As researchers in the field of education, we face the need to evaluate, correct, and provide guidance on the uses of this new technology in order to ensure that its net contribution to students' knowledge acquisition process is positive.

We are still in the early stages of incorporating the tools that A.I. provides. The novelty of the field analyzed in this study entails a certain lack of independent, sufficiently developed, and well-validated data. Consequently, the data sources used for this research are observational in nature and therefore carry a relative statistical weight that must be taken into account.

This study is centered on the analysis of the current use of A.I. by students, specifically those engaged in language learning. A preliminary exploration addressing university students of Spanish as a second foreign language has helped us identify the strengths through which AI agents provide added value, as well as those aspects that, far from contributing positively to students' work, worsen their learning prospects. Through the analysis of A.I. use among a small group of Taiwanese university students of Spanish, this study aims to establish a foundation that can be applied in future studies on both the problems and the possibilities that A.I. represents in the field of language teaching.

The results derived from this research can be divided into two categories: incorrect usage of A.I. by students, and proposals for the development of an efficient system for using A.I. in educational contexts.

Regarding the uses of this technological tool, we have identified two fundamental challenges. First, there are misguided uses of A.I. agents by students. Typically, the main objective -and often the only objective- is the successful completion of assigned tasks. In these cases, students correct their work using the suggestions provided by the A.I. agent without questioning their validity or asking for explanations. The problem associated with this behavior is the loss of the opportunity to reflect carefully on the more complex aspects of language use, which is precisely the purpose of individual homework. In addition to that, the traditional channel of communication between teacher and student through the analysis of class assignments' inaccuracies and errors has been affected due to the use of A.I. prior to submission.

Secondly, we have detected another problem related to errors originated by A.I., whose origin may be rooted in its very design. A.I. agents are, for lack of a better word, set up to avoid arguing with users and tend to reaffirm their opinions, making errors that in fact have a widely used name: A.I. hallucinations. This term encompasses all kinds of incorrect or false responses generated by language models, or LLMs. The problem in this case lies in the fact that false or biased information may be incorporated into the student's body of knowledge without the student being able to discern or even suspect it.

Following our analysis of the current situation regarding the use of these advanced tools, we conclude that, in order to solve these and other problems inherent in the use of LLMs, it is necessary to develop protocols for their proper use. It is neither sufficient nor desirable to offer students the possibility of using them without additional training in how to operate these powerful tools.

As a first step, we define what we consider to be a proper use of A.I. as "one that improves students' knowledge or their skills for acquiring it." Furthermore, it is necessary to shift the fundamental A.I. paradigm from one that emphasizes final results to one centered on the processes that lead to knowledge acquisition and on how A.I. can support those processes. An additional aspect to consider is the development of techniques that enable students to question the results and evaluate whether a given proposal suggested by an LLM system is reliable or not.

**Keywords:** LLM, language learning, Artificial Intelligence, learning methodologies, new technologies