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Inteligența artificială și învățarea limbilor străine: catalizator pedagogic sau simptom al unei crize didactice?

Abstract (Artificial Intelligence in Foreign Language Learning, between Pedagogical Catalyst and Didactic Crisis): The research investigates how artificial intelligence affects foreign language education through survey responses from Romanian students and international students. The preliminary data shows that students widely use AI tools including conversational chatbots and automatic translators to perform text composition, grammatical correction and vocabulary expansion tasks. Most participants recognize AI's learning support capabilities yet they worry about the absence of genuine human interaction and their potential dependence on AI systems and the accuracy of AI-generated information. The study reveals a developing conflict between students' improved digital independence and the potential breakdown of conventional teaching methods. It confirms the existence of a hidden didactic crisis which diminishes teaching authority while substituting critical thinking with instant automated results. The research emphasizes the immediate requirement for educational paradigm reconstruction because AI should serve as a teaching partner which supports an approach that develops linguistic and intercultural competencies. We advocate for a learning model which unites human thinking abilities with automated processing systems.

Keywords: *artificial intelligence, foreign languages, autonomy, didactic crisis, linguistic awareness.*

Rezumat: Studiul propus analizează impactul utilizării inteligenței artificiale (AI) în procesul de învățare a limbilor străine, pornind de la datele colectate într-un chestionar aplicat studenților străini și români de la Universitatea de Științe Agricole și Medicină Veterinară din Cluj-Napoca. Rezultatele preliminare sugerează o utilizare frecventă a instrumentelor AI – în special a chatboturilor conversaționale și a traducătorilor automați – pentru sarcini precum redactarea de texte, corectarea greșelilor gramaticale și îmbogățirea vocabularului. Deși majoritatea respondenților apreciază eficiența AI în învățare, ei exprimă și îngrijorări privind lipsa interacțiunii umane, riscul de dependență și fiabilitatea informațiilor. Această ambivalență evidențiază o tensiune între autonomia digitală crescută a studenților și posibila „încremenire în proiect" a cadrului didactic clasic. Studiul susține ipoteza unei crize didactice latente, în care rolul profesorului devine tot mai periferic, iar motivația și reflecția critică sunt înlocuite de performanță imediată și automatizată. Se avansează nevoia urgentă de reconstrucție a paradigmelor educaționale, în care AI nu este doar un instrument, ci un partener pedagogic integrat într-o abordare centrată pe formarea conștiinței lingvistice și interculturale. În final, se propune un model mixt de învățare, bazat pe complementaritatea dintre gândirea umană și procesarea automată.

Cuvinte-cheie: *inteligență artificială, limbi străine, autonomie, criză didactică, conștiință lingvistică.*

1. Introduction

Educational technology experienced an extraordinary transformation during the previous five years because generative artificial intelligence became rapidly integrated into standard teaching practices. The successive launch of large language models — from ChatGPT 3 to the current multilingual versions — has lowered access barriers to advanced tools for assisted writing, neural translation, and conversational tutoring, generating a wave of enthusiasm but also a latent anxiety in academic environments (Shen, Tao 2025, 3-4). Students now have the ability to interact with a digital "interlocutor" which shows native speaker abilities while providing immediate grammatical corrections and advanced paraphrasing suggestions. The unrestricted availability of this technology transforms student independence while simultaneously challenging the conventional position of teachers as the exclusive authority in target language education.

In the field of foreign language learning, AI becomes a catalyst for a pedagogy focused on immediate performance, allowing the "externalization" of part of the linguistic processing — a phenomenon known as cognitive offloading. Recent studies report a medium positive effect on written accuracy but also highlight the erosion of reflective engagement when automated feedback is not critically integrated by learners (Chua & Annamalai 2025, 295). The training of algorithms with dominant corpora results in the reproduction of cultural biases and the simplification of discursive registers which produces a homogenization of expression and the loss of pragmatic subtleties (Wiboolyasarin et al. 2025, 108). The promise of democratization of access to linguistic resources hides the risk of a didactic crisis where critical thinking and authentic human interaction are replaced by the seemingly infallible efficiency of algorithms.

The academic environment stands at a critical point because it must decide between using AI as a clear educational tool or accepting it as a random solution that would continue to blur the distinction between genuine skills and automated results. The Office of Educational Technology report stresses the requirement of an ethical framework which establishes teachers as digital curators and cultural mediators (Fallon 2020, 2450). Critical pedagogy agrees with this perspective because technologies contain power dynamics and discursive norms that need to be exposed for challenge (Salo-Pöntinen 2021, 321).

The present study joins this discussion through its analysis of actual AI tool usage by Romanian and French students. The research evaluates the usage patterns, tool efficiency and limitations through thirteen bilingual questionnaire questions. The research combines statistical data with thematic content evaluation of unstructured answers to resolve the fundamental question about whether AI functions as an authentic educational driver or indicates a teaching crisis that moves instructors toward the margins. The identification of this answer becomes essential for developing educational models which harness automation advantages without giving up critical and intercultural training for global language learners.

2. Methodology

2.1. The data collection instrument was an online questionnaire, developed using Google Forms, structured into five sections and fully translated into Romanian and French through the forward–backward translation method to ensure semantic equivalence. The final sample consisted of 334 students enrolled in Romanian- and French-language programs at four of the six faculties of USAMV Cluj-Napoca during the 2024–2025 academic year. Of these, 161 were enrolled in Romanian-language programs and 173 in French-language programs. The distribution by year of study was relatively balanced across both tracks, with a higher participation rate among first- and sixth-year students: Year I – 37.25%, Year II – 11.1%, Year III – 21.7%, Year IV – 8.4%, Year V – 7.2%, Year VI – 14.35%. Participants' ages ranged from 18 to 29. Biological sex was self-reported at registration, resulting in a female proportion of 77% for the Romanian track and 81.5% for the French track. The inclusion criteria were: active student status, informed consent for data processing, and complete submission of the questionnaire.

The questionnaire comprised 26 items, 23 of which were closed-ended (5-point Likert scales, frequency and multiple-choice questions), and 3 were open-ended. The structure was as follows: Section A – Demographic data and digital profile (4 items); Section B – Frequency and purpose of AI use (7 items); Section C – AI and language learning (5 items); Section D – Perceptions and ethical concerns (6 items); Section E – Anticipated professional use (4 items). For content validation, three experts – a career development specialist, a clinical veterinarian, and a linguist – assessed the relevance and clarity of each item. Data collection took place between May 14 and June 10, 2025. In the following subsections, we refer only to the first 13 items, which are relevant to the study's objective: the challenges and benefits that AI platforms bring to language education, particularly in higher education. Other findings from our questionnaire will be addressed in future studies. Questions 1–4 (demographic) were processed descriptively. Question 5 was coded according to CEFR levels. Questions 6–9, concerning frequency/use, were quantified in percentages. Question 10 included seven Likert-scale items (1–5). Questions 11–13, with open-ended/multiple responses, were analyzed thematically, and a detailed interpretation appears in a separate published study (Ursa et al., 2025).

2.2. The investigation requires **a theoretical framework** to explain the relationship between technological promise and pedagogical realities before presenting empirical data. The implementation of artificial intelligence in language education spans from basic automatic correction tools to developing intelligent tutoring systems which generate individual learning profiles (Sangkala 2024, 569). The historical development of AI tools for language learning progressed from rule-based programs in the 1990s to transformer-based neural networks which resulted in a doubling of European university campus adoption rates from 2019 to 2024 (Chua & Annamalai 2025, 276). The understanding of how students view AI requires the analysis of "digital autonomy" and "augmented agency" concepts as described by Wiboolyasarin et al. (2025, 101) because students perceive AI as an extension of their cognitive abilities that transforms learning processes.

Modern research complicates the idealized view of AI-assisted educational practices. The analysis of meta-analyses indicates a small positive impact on grammatical accuracy (Chua & Annamalai 2025, 289) but research indicates that automated feedback loses its effectiveness when students do not engage in metalinguistic reflection (Sayici & Aydin 2025, 3). The essential question emerges regarding whether AI develops or weakens critical thinking abilities. The practice of cognitive offloading through device-based mental task transfer shows a negative relationship with problem-solving test results (Grinschgl et al. 2021, 1489). The technological facilitator functions as a cognitive substitute which produces an "algorithmic comfort zone" that conceals errors through automated fluency illusions.

The theoretical framework includes research about the transformation of teaching responsibilities. Socio-constructivist models demonstrate that authentic human interaction serves as a fundamental requirement for developing socio-pragmatic competence and intercultural awareness. Students who focus on "rapid efficiency" might view the teacher as unnecessary because AI delivers instant feedback while the teacher functions as an information curator and cultural mediator. Research on e-learning forums shows that students experience mental exhaustion because of the numerous conflicting AI recommendations they receive (Wiboolyasarin et al. 2025, 108). The paradoxical situation of information overload meets cognitive offloading creates a friction point which makes feedback filtering and selection and integration equally crucial as the linguistic content itself.

The critical approaches based on emancipatory pedagogy state that AI technologies maintain cultural models from their training datasets (Lockwood 2024, 12–13). Machine translations reduce discourse registers to simpler forms while chatbots reproduce pragmatic stereotypes which exist in the source language. The need for "algorithmic literacy" (Ridley & Pawlick-Potts 2021, 11) emerges because students must learn to identify systemic biases and create meaning when interacting across cultures. The theoretical framework of this study unites instrumental-constructivist principles with critical perspectives to promote AI as a transparent pedagogical partner instead of an opaque authority.

3. Findings

The first dimension analyzed concerns the linguistic profile of the respondents. The Romanian sub-sample shows that 54.6% of students evaluate their English proficiency at the B2–C1 upper-intermediate levels and 13% rate it at C2 level. The French distribution shows a similar pattern with 56.1% of students at the B2–C1 levels. The presence of other languages—German, Spanish, Italian—at higher levels (above A2) remains marginal (below 6%), which confirms the status of English as the academic lingua franca in both contexts. The French students declare Romanian at A1 level in 82% of cases and the proportions are similar for German, Italian, Spanish and French (the latter in the case of Romanian students). The homogeneity of CEFR levels indicates that any differences in students' perceptions of AI cannot be explained by differences in linguistic competence but rather by cultural and institutional factors.

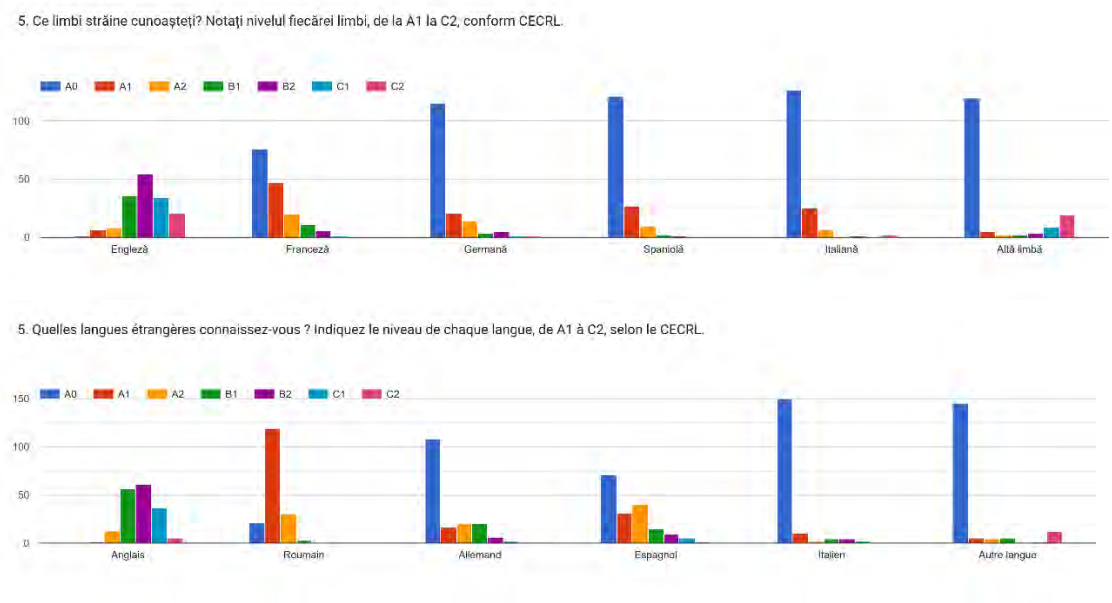

Fig. 1. Self-declared language proficiency levels of respondents

Conversational chatbots such as ChatGPT have a penetration rate of 92.5% in France and 96.6% in Romania. Regarding the typology of AI tools adopted, data from questions 6–8 show that automatic translators (e.g., DeepL, Google Translate) are used by 65.8% of Romanian students and 88.4% of French students. On average across both subgroups, students report using these tools primarily for essay writing (62%), paraphrasing (44%), and simulating dialogue with a virtual native speaker (38%), indicating a strong orientation toward written and metalinguistic tasks.

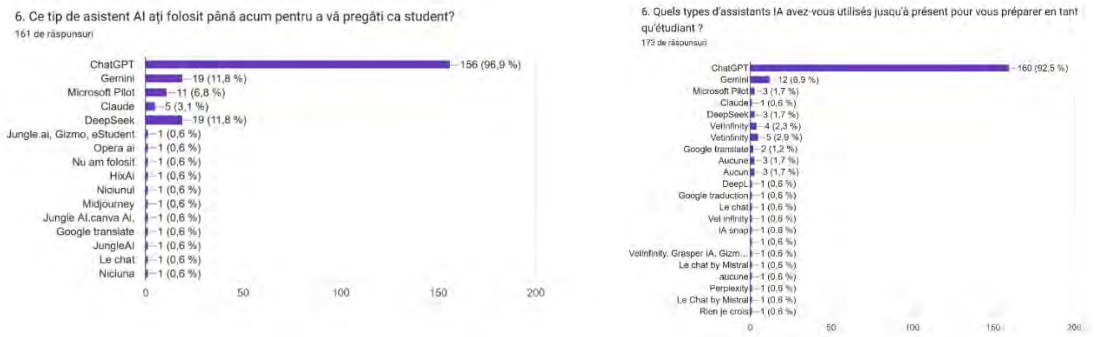

Fig 2 AI Tools in Foreign Language Use

The frequency analysis (Question 16) nonetheless highlights differences in the pace of AI use. While 20.9% of French students report using such tools at least once a week, only 13.9% of Romanian students indicate the same regularity, which is offset by a higher percentage reporting use 2–3 times per week (43.6% compared to 24.4%).

Daily users remain a minority in both groups (≈20%), suggesting that although AI is well integrated, it has not yet become a consistent substitute for human interaction or traditional learning materials.

Fig 3. Frequency of AI Use

Perceptions of pedagogical effectiveness (Question 10) confirm this ambivalence. Likert item averages range from 2.40 (conversational fluency for French students) to 3.42 (speed of feedback for Romanian students). Overall, respondents value AI primarily for grammar correction (≈3.4) and vocabulary enrichment (≈3.3), while its impact on oral fluency is considered modest. Inter-group differences are small but notable in terms of perceived autonomy: French students report a slightly higher sense of control (3.39) compared to their Romanian counterparts (3.25), likely due to more consistent institutional initiatives for digital training in French universities (Sanchez et al. 2020, 9).

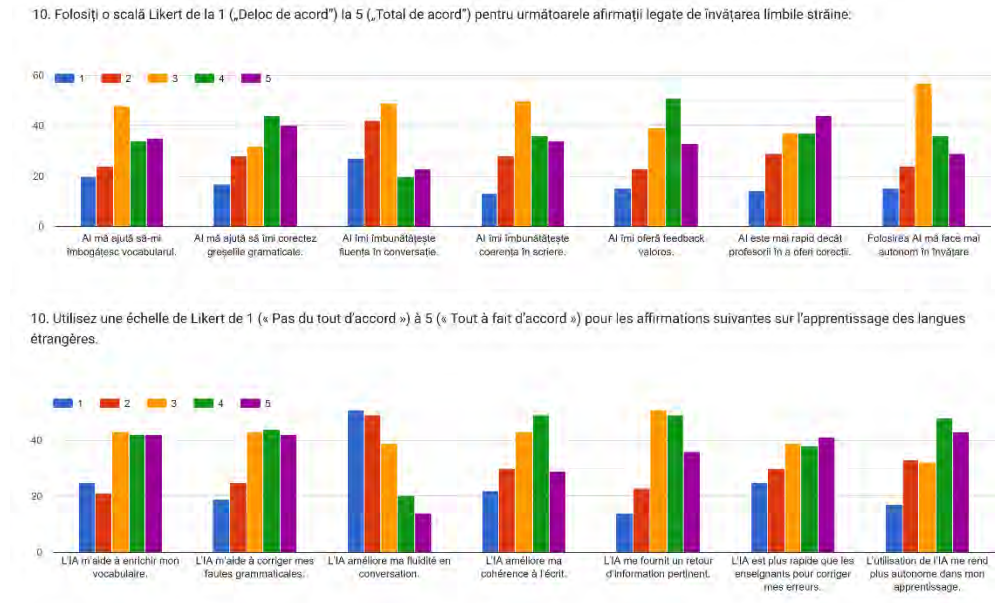

Fig 4. Usefulness of AI in Linguistic Tasks

The qualitative analysis of open-ended responses (Questions 11–13) reveals four major themes. The students appreciate the flexibility of AI for practice, but they still struggle with cultural-pragmatic accuracy in the translation. The students

express their fear of losing their thinking skills because they rely on pasting content while also confirming their need for teachers to guide their learning and motivation. The study's hypothesis about AI acting as both a learning accelerator and a sign of an educational crisis is supported by the observed tensions between these functions (Ursa et al. 2025, 129).

4. Discussions

The equal distribution of CEFR levels among respondents eliminates any possibility that language skills determine their perception differences. The differences in weekly usage of AI between France and monthly usage in Romania can only be explained by how well universities provide digital infrastructure and how much students learn through independent online studies. The study evidence shows AI growth exists beyond technological development since institutions determine how people experience technology.

Most users select writing-related features in their AI applications. According to Chua and Annamalai (2025, 292) the current generation tools show a textual orientation because 62% of participants use AI for writing while only 38% use it for dialogue simulation. The results demonstrate that students find oral fluency as a weak point because only 15% of students achieved it even though LLM-type chatbots excel at generating syntactic and lexical coherence.

The distinction between students' detailed textual work and their struggles with socio-pragmatic abilities should be understood as a technological manifestation of output visibility. The time it takes to receive feedback becomes the key performance metric which causes people to overlook their mental processing activities. According to Sayici and Aydin (2025, 4) instant feedback generates "an illusion of expertise" that hinders metalinguistic reflection and our study findings confirm this theory because students frequently discussed dependency in their open-ended answers.

The teaching profession transforms into a position which connects students to meaning rather than eliminating it. Students who used AI positively for their work still recognized the importance of human verification for cultural material in 71% of their statements. The digital curator model supports the notion that teachers function as essential evaluators of AI outputs instead of serving as the exclusive information providers. This approach provides educational justification to use AI as an educational resource by ensuring that human assessment leads the final evaluation process.

The explicit evidence of cognitive offloading emerges in 27% of qualitative responses because students use phrases like "I copy directly" and "I no longer think before pasting" to demonstrate their reliance on automation for language processing. Student awareness about automation leading to superficiality exists but does not stop them from using the benefits of the system. The didactic crisis takes the form of students giving up on convenience instead of showing opposition to technology.

The introduction of intercultural elements creates additional complexities in the analysis. Automatic translators have become the choice for more than 80% of participants but 42% doubt their accuracy because of missing cultural context.

The study by Wiboolyasarin et al. (2025, 109) reveals how LLMs tend to standardize registers which causes pragmatic sensitivity problems that our data shows through many comments about inappropriate tone and lost nuances. This data point strengthens the case for teaching algorithmic literacy above linguistic literacy.

According to Ferrara (2023, 4) AI technologies reproduce the biases which exist within the datasets used for training. Students from France frequently encounter "intrusive anglicisms" in their AI translations but Romanian students encounter translations that lack proper formal language usage. AI acts as a discursive hegemonic agent which enforces linguistic norms from languages that hold dominant representation status. The implementation of AI systems requires students to develop critical metacognitive skills to identify the authors and their intentions and data origins.

The results show that educators should implement a dual approach that uses automated processes in combination with supervised reflective learning environments. The proposed "post-AI" workshops enable students to review chatbot outputs against human sources while they study the differences between these two sources. The proposed method responds to Chua and Annamalai's (2025, 299) call for moving away from quick production and toward critical interpretation. AI serves as a pedagogical catalyst only through systematic practices that prevent it from becoming an indicator of a didactic crisis.

5. Limits

The study uses a contextual sample which restricts the ability to generalize findings to universities with matching characteristics and structural elements. The high number of female participants in the study could produce gender-related biases when measuring how useful AI appears to students. The self-reported language proficiency of participants might either overstate or understate their actual language abilities which affects the interpretation of correlation results. The bilingual questionnaire contained technical terms which respondents might have understood differently. The thirteen analyzed questions represent a limited portion of students' daily digital activities. Quantitative data lacks the ability to show the small-scale cultural negotiations which take place during actual face-to-face interactions. The thematic analysis of open-ended responses depends on interpretation while researchers introduce their own biases to the analysis. The reported AI usage data lacked verification through digital logs because participants were expected to provide truthful information. The survey did not ask participants about their emotional responses to digital tools including their feelings of anxiety and their long-term contentment. The study focused on the France–Romania intercultural axis while omitting insights from European and non-European cultural perspectives. The research results stem from a particular technological period during the LLM era's initial phase but their validity will decrease because of upcoming technological advancements.

6. Conclusions

The study results show that more than 70% of Romanian and French students use artificial intelligence tools in their language-related assignments, particularly for written work such as essays and text summaries. Oral fluency remains underrepresented despite these practices which show the immediate usefulness of AI for grammatical and lexical feedback according to meta-analyses (Chua & Annamalai 2025, 292). The institutional infrastructure plays a role in these differences because French students use AI more frequently each day while feeling more in control of their digital activities which demonstrates that resource availability and academic environments shape how technology is used in classrooms. The qualitative findings show that accessibility and personalization are balanced against cultural-pragmatic accuracy concerns and dependency risks which align with the ambivalence found in research literature (Sayici & Aydin 2025, 4).

These results need interpretation through the previously discussed theoretical frameworks since AI-based cognitive offloading creates passive students who accept algorithmic answers while teachers become responsible for digital output evaluation. Machine translation fails to meet the requirements of cultural context and appropriate tone as shown by the extensive student feedback which demonstrates the need for algorithmic literacy skills. AI functions as a curricular actor that shapes discursive norms and maintains existing systemic biases in the process of language education. The diagnosed didactic crisis results in teachers surrendering to immediate productivity and convenience rather than showing technology resistance which threatens to diminish advanced foreign language speakers' critical thinking and socio-pragmatic abilities.

A hybrid model built on three pillars represents our solution to transform AI from crisis symptom to language development catalyst. The first element of this approach uses AI for repetitive tasks to give students additional time for deep learning activities. Students participate in reflective "post-AI" workshops which enable them to evaluate algorithmic responses against human sources and examine biases to develop metacognitive skills (Chua & Annamalai 2025, 299). Formative assessments that evaluate both the correctness of outputs and the learning process transparency will encourage intellectual responsibility. Research should continue to track student performance over time while collecting digital logs to prove actual usage rates and increasing the cultural diversity of the study population to study new LLM generation evolution. A pedagogical framework that enables AI to become an equal partner can enhance creativity and critical thinking in foreign language education instead of replacing these skills.

Bibliography

Braun, Virginia, Clarke, Victoria. 2006. *Using Thematic Analysis in Psychology*, in „Qualitative Research in Psychology", vol. 3, nr. 2, p. 77-101. https://doi.org/10.1191/1478088706qp063oa

Chua, H. W., Annamalai, N. 2025. *A Bibliometric Analysis And Systematic Review In AI Chatbots In Language Teaching And Learning*, in „International Journal of Technology in Education", vol. 8, nr. 2, p. 274-331. https://doi.org/10.46328/ijte.1035

Falloon, G. 2020. *From Digital Literacy to Digital Competence: The Teacher Digital Competency (TDC) Framework*, in „Educational Technology Research and Development", 68(5), p. 2449-2472. https://doi.org/10.1007/s11423-020-09767-4

Ferrara, E. 2023. *Should Chatgpt Be Biased? Challenges and Risks of Bias in Large Language Models*. First Monday, p. 1-39. https://doi.org/10.5210/fm.v28i11.13346

Grinschgl, S., Papenmeier, F., & Meyerhoff, H. 2021. *Consequences of Cognitive Offloading: Boosting Performance but Diminishing Memory*, in „Quarterly Journal of Experimental Psychology", 74(9), p. 1477-1496. https://doi.org/10.1177/17470218211008060

Lockwood, A. 2024. *Mitigating AI Bias in School Psychology: Toward Equitable and Ethical Implementation*. https://osf.io/preprints/psyarxiv/mh4rj_v1, last acces 19.08.2025.

Ridley, M. and Pawlick-Potts, D. 2021. *Algorithmic Literacy and the Role for Libraries*, in „Information Technology and Libraries", 40(2), p. 1-15. https://doi.org/10.6017/ital.v40i2.12963

Sánchez, D., Trigueros, I., Trestini, M., & González, C. 2020. *Self-Perception and Training Perceptions on Teacher Digital Competence (Tdc) in Spanish and French University Students*, in „Multimodal Technologies and Interaction", 4(4), 74, p. 2-13. https://doi.org/10.3390/mti4040074

Salo-Pöntinen, Henrikki. 2021. *AI Ethics-Critical Reflections on Embedding Ethical Frameworks in AI Technology*, in „International Conference on Human-Computer Interaction". Cham: Springer International Publishing, p. 311-329. https://dl.acm.org/doi/10.1007/978-3-030-77431-8_20#core-history

Sangkala, Ismail; Mardonovna, Nargiza Sulaymanova. 2024. *Artificial Intelligence as a Personalized Tutor in Language Learning: A Systematic Review*, in „Klasikal: journal of education, language teaching and science", 6.2, p. 565-576. https://doi.org/10.52208/klasikal.v6i2.1193

Sayici, S., Aydin, S. 2025. *Using Artificial Intelligence in Foreign Language Teaching: Teachers' Perspectives*, in „Proceedings of the World Conference on Education and Teaching", vol. 4, nr. 1, p. 1-10. https://doi.org/10.33422/etconf.v4i1.1016

Shen, Xiaolei; Tao, Yahui. 2025. *Metacognitive Strategies, AI-Based Writing Self-Efficacy and Writing Anxiety in AI-Assisted Writing Contexts: A Structural Equation Modeling Analysis*, in „International Journal of TESOL Studies", 7.1. https://doi.org/10.1016/j.system.2024.103485

Ursa A., Mihai M., Albert N. 2025. *Mapping the Digital Imaginary: A Qualitative Analysis of Students' Perceptions of AI in Language Learning*, in „Perspective transversale în educație - competențe pentru viitor", Presa Universitară Clujeană, p. 128-143.

Wiboolyasarin, W., Wiboolyasarin, K., Tiranant, P. 2025. *AI-Driven Chatbots in Second Language Education: A Systematic Review of Their Efficacy and Pedagogical Implications*, in „Ampersand", vol. 14, nr. 4, art. 100224, p. 1-19. https://doi.org/10.1016/j.amper.2025.100224