



REVISTA

CÁTEDRA

EDITORIAL

"It is an honor for *Cátedra Journal* to present volume 9, number 2 of its electronic version. The topics covered are based on the theoretical foundations of educational sciences in their various specializations and educational levels. Thus, this issue presents relevant and noteworthy aspects of each academic work, addressing areas such as educational psychology, educational resources, and educational innovation."

The content presented in this new issue is characterized by its adherence to established research methodology. Furthermore, it is rigorously researched through blind peer review and grounded in practical teaching theory and practice.

This issue comprises eight approved articles:

The first article, titled *"Interactive Environments for Learning Biochemistry: A Pedagogical Experience with TopWorksheets in Higher Education,"* was authored by Luis Chonillo-Sislema, María Chicaiza-Uquillas, Erick Ruiz-Totoy, and Génesis Amaguaya-Uvidia. The manuscript aimed to evaluate the impact of interactive worksheets in TopWorksheets on biochemistry learning, using a quasi-experimental quantitative methodology with 67 higher education students to compare conceptual knowledge and experience. The findings indicated that the use of these worksheets significantly improved academic performance (5.50 ± 1.81 vs. 7.20 ± 2.23 ; $p = .01$; Cohen's $d = 0.83$) and fostered high satisfaction (89%), enhancing both the conceptual and attitudinal dimensions of learning.

The second article, titled *"Artificial Intelligence and the Teaching Process in Economics Students,"* was authored by Santiago Vinueza-Vinueza and Alejandra Fonseca-Factos. The research aimed to analyze the influence of artificial intelligence (AI) on the learning process of Economics students at the Central University of Ecuador, focusing on their motivation and academic performance. The methodology employed a quantitative approach with a non-experimental, cross-sectional design. A stratified sample of 149 university students was evaluated using the Study Process Questionnaire (SPC) and descriptive and inferential statistical analyses. The findings demonstrated that the integration of AI has a positive and significant influence on both academic motivation ($M = 3.44$; $p < .001$) and performance ($M = 2.96$; $p < .001$), establishing it as a key pedagogical resource for enhancing the quality of higher education in the region.

The third article, titled *"Codes of Coexistence in the Face of Systematic Violence and the Narco-State in Ecuador: An Exploratory-Descriptive Study, 2024,"* was authored by Galo Alejandro Palacios-Terán. The objective of the research was to analyze the impact of the guidelines of the Organic Law of Intercultural Education (LOEI) on the creation of safe environments within the Ecuadorian context of systematic violence and its configuration as a narco-state. The methodology consisted of a descriptive study with a qualitative and exploratory approach, which contrasted the regulatory framework of the LOEI and the 2008 Constitution with the territorial reality and the security crisis stemming from organized crime. The conclusions revealed a tactical disconnect between current regulations and the criminal environment, showing that the codes of coexistence lack protocols to address criminal co-optation. Therefore, a reform is needed that prioritizes human security and equips teaching staff with crisis management skills in the face of threat scenarios.



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

The fourth article, titled *"The Influence of Digital Skills on Linguistic Competencies in University Students,"* was authored by Dina Chela Inga-Lindo, Evelyn Patricia Zavala-Zavala, and Joanes del Carmen Benott-Santander. The objective of the research was to determine the influence of digital skills on the linguistic competencies of students at the Federico Villarreal National University (2024). The methodology adopted a quantitative, correlational-causal approach with a non-experimental design, collecting data through a Likert-scale survey administered to a non-probability sample of 202 first- and second-year students. The findings demonstrated that digital skills have a significant and moderate influence on linguistic competencies, supported by a Pearson correlation coefficient of $r = 0.695$ ($p < 0.05$). This highlights the urgent need for faculty to master and apply technological tools to optimize communication and conceptual interpretation processes in the face of student diversity.

The fifth article, titled *"Associated Factors and Statistical Analysis of Alcohol Consumption in University Students,"* was authored by Jimmy Román-Proaño, Marcela Cadena-Figueroa, Nancy Valladares-Carvajal, and Pilar Salazar-Almeida. The objective of the research was to determine alcohol consumption patterns and evaluate the influence of the social environment in a sample of 1,045 higher education students from the National University of Chimborazo (Ecuador). The methodology consisted of a descriptive study with a quantitative approach, applying a structured questionnaire that assessed consumption habits, consequences, and associated factors in future education professionals. The findings showed that, although 57% do not consume alcohol regularly, their drinking decisions are mainly linked to individual preferences and social pressure within the university environment, demonstrating that the family context does not act as a protective factor and requiring a preventive approach focused on awareness and resilience in social settings.

The sixth article, titled *"Interactive Apps as a Strategy for Socio-Emotional Development in Basic General Education Students in Rural Schools,"* was authored by María Granda-Moreno and Diana Cevallos-Benavides. The research aimed to propose the integration of free interactive applications to strengthen the development of socio-emotional skills in primary school students in rural schools. The methodology employed a mixed-methods approach with a concurrent triangulation design, collecting data through observation sheets applied to 22 students, surveys of 2 teachers, and interviews with 3 experts to evaluate the pedagogical and technical feasibility of the resources. The conclusions demonstrated that the proposal to implement platforms such as Smile and Learn, Respira, Juega, Actúa (Breathe, Play, Act), and Invasión Zombi (Zombie Invasion) is technically and pedagogically viable due to their offline accessibility and cultural relevance, establishing them as an innovative alternative to enhance empathy and self-regulation while reducing socio-emotional gaps in rural environments.

The seventh article, titled *"Music Learning in the Development of Socio-Emotional Competencies in First-Year High School Students,"* was authored by Jonathan Pillajo-Tituaña and María Guacho-Morejón. The research aimed to analyze the impact of music learning as a pedagogical resource on the development of socio-emotional competencies in first-year high school students. The methodology consisted of a quasi-experimental design with pre-test and post-test assessments administered to a control group (receiving traditional music instruction) and an experimental group (participating in structured musical activities), using the Bar-On ICE inventory as the measurement instrument. The findings demonstrated significant improvements in the experimental group in terms of emotion identification and management, stress reduction, and the promotion of teamwork, confirming the effectiveness of a structured music intervention as a key tool for overcoming curricular challenges and enhancing socio-emotional development in adolescence.



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

Finally, the eighth article, *"Learning Linear and Quadratic Functions Using Artificial Intelligence in Higher Education Students,"* authored by Bryan Carrera-Arias, is presented. The objective of this research was to evaluate the impact of artificial intelligence (AI), based on Deep Learning and Machine Learning, on the academic performance and acceptance of higher education students learning linear and quadratic functions. The methodology consisted of a quantitative approach and a quasi-experimental design with a sample of two groups (40 in group A and 41 in group B). Data were collected through diagnostic questionnaires, dichotomous final assessments, and a Likert-scale satisfaction survey, analyzed using descriptive and inferential statistics (Student's t-test in SPSS). The conclusions determined that the AI-based model did not significantly improve grades compared to the traditional method; however, it generated positive perceptions, greater motivation, active participation, and efficient interactive feedback in the subject of Mathematics.

Cátedra journal thanks all the authors and reviewers of articles who made the publication of this issue possible. Furthermore, it invites the national and international academic community to submit their research related to Educational Sciences in its various specializations and educational levels.

Directors/Editors-in-Chief



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)