

## Impact of Generative Artificial Intelligence on the Quality of Autonomous Learning in Distance University Education

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### ABSTRACT

This article analyzes the impact of generative artificial intelligence (GAI) on the quality of autonomous learning among students enrolled in distance university programs. Method: A mixed sequential explanatory design (QUAN-qual) was used, combining a quantitative phase based on structured surveys applied to 384 university students from three Latin American institutions, with a qualitative phase integrating semi-structured interviews with 18 teachers and 12 students. Results: Findings show that 72.4% of students who systematically used GAI tools reported significant improvements in learning self-regulation ( $\chi^2 = 28.43$ ;  $p < .001$ ). However, 41.6% showed technological dependence that compromises critical thinking. Conclusions: GAI enhances autonomous learning when integrated through structured pedagogical frameworks, but without adequate didactic mediation, it can erode essential metacognitive competencies.

**Keywords:** generative artificial intelligence, autonomous learning, distance education, self-regulation, educational technology, metacognition.

**Biographical Review:** Biographical sketch: Born in San Fernando de Apure, currently residing in San Juan de los Morros, Guárico state, lawyer, TSU in radiodiagnosis, Bachelor's degree in radioimaging, specialist in criminal law, PhD in educational sciences, I work at UNERG as a specialist lawyer and teacher