REVISTA INVECOM
ISSN en línea: 2739-0063

Gamification as an active methodology to encourage autonomous learning: a systematic review

La gamificación como metodología activa para incentivar el aprendizaje autónomo: una revisión sistemática

Received: 30/04/2025 - **Accepted:** 03/09/2025

César Gerardo León-Velarde
https://orcid.org/0000-0002-8273-1995
cleon@unfv.edu.pe
Universidad Nacional Federico Villarreal. Lima, Peru

Luis Enrique Luna Campos
https://orcid.org/0000-0001-7184-6140
llunac@unab.edu.pe
Universidad Nacional de Barranca. Barranca, Peru

Reynaldo Justo Mendoza Marin
https://orcid.org/0000-0002-4862-589X
mendozamarinreynaldojusto@gmail.com
Universidad Tecnológica de los Andes. Abancay, Peru

Rocio Esmeralda Chávez Cabello
https://orcid.org/0000-0002-6289-1457
rchavez@unheval.edu.pe
Universidad Nacional Hermilio Valdizán. Huánuco, Peru

Walter Luis Chucos Calixto
https://orcid.org/0000-0001-8399-0545
Walter.chucos@unapiquitos.edu.pe
Universidad Nacional de la Amazonía Peruana. Iquitos, Peru

Abstract

Educational innovation involves transforming the role of university professors, who must abandon traditional methods to assume new roles of support and motivation. Thus, the goal is for students to develop the self-management necessary to achieve meaningful learning. To achieve this goal, it is essential to incorporate methodologies that facilitate this process. One such methodology is gamification, whose use has grown significantly in basic and higher education. In this context, this study aims to identify how gamification can enhance independent learning. To this end, the PRISMA method was applied in a systematic review, selecting a total of 26 relevant articles. The analysis of these articles led to the conclusion that gamification effectively increases motivation for independent learning among university students. Furthermore, it was evident that the value of this methodology increases significantly when integrated with information and communication technology (ICT) tools. Therefore, it is essential for professors to carefully plan and develop its implementation, adapting it to different fields of study. In this way, gamification is consolidated as an effective teaching strategy for strengthening autonomy and motivation in university educational processes.

Keywords: autonomous learning, gamification, motivation.

Resumen

La innovación educativa implica transformar el rol de los docentes universitarios, quienes deben abandonar métodos tradicionales para asumir nuevas funciones de acompañamiento y motivación. Así, se busca que los estudiantes desarrollen la autogestión necesaria para alcanzar un aprendizaje significativo. Para lograr este objetivo, es fundamental incorporar metodologías que favorezcan dicho proceso. Una de estas metodologías es la gamificación, cuyo uso ha crecido notablemente en la educación básica y superior. En este contexto, el presente

estudio se propone identificar cómo la gamificación puede potenciar el aprendizaje autónomo. Para ello, se aplicó el método PRISMA en la elaboración de una revisión sistemática, seleccionando un total de 26 artículos relevantes. El análisis de estos trabajos permitió concluir que la gamificación efectivamente incrementa la motivación en el aprendizaje autónomo de estudiantes universitarios. Además, se evidenció que el valor de esta metodología aumenta significativamente cuando se integra con herramientas tecnológicas de la información y la comunicación (TIC). Por tanto, resulta esencial que los docentes planifiquen y desarrollen cuidadosamente su implementación, adaptándola a los distintos campos de estudio. De esta manera, la gamificación se consolida como una estrategia didáctica eficaz para fortalecer la autonomía y la motivación en los procesos educativos universitarios.

Palabras clave: aprendizaje autónomo, gamificación, motivación.

Introduction

Currently, education is conceived as much more than a simple transmission of information; it is a motivating process that, at its various stages, aims to propel students toward meaningful knowledge, which involves a transformation in the traditional role of the educator (Sanjuán & Martínez, 2025). This process should focus on establishing foundations that guide individuals' behavior in various contexts, aligned with the information and technology society from a systemic perspective (Barrientos, 2018).

In this context, educators are called to continuously renew their teaching strategies, adapting their pedagogy to stimulate problem-solving abilities and promote skills such as analysis and synthesis of complex situations. Therefore, they must prioritize methodologies that prepare students to face the challenges of a constantly changing society while fostering a proactive attitude toward learning (Mena et al., 2024).

In this way, educators should encourage the development of autonomous learning in their classrooms, awakening in students the ability to organize their knowledge and "learn to learn." Consequently, they will be able to set their own goals, select resources and methods, and adopt an active role in their education that strengthens their creativity, responsibility, and objectivity (Romero et al., 2024).

In higher education, promoting autonomous learning enhances critical thinking, collaborative work, and problem-solving in professional contexts, which increases professional competitiveness and strengthens personal self-efficacy. This transformation implies that individuals must modify their study habits and adopt a new learning culture (Pérez, 2020). In light of this, the question arises: How can dynamic and autonomous learning be achieved in the university context?

To address this, gamification emerges as a complementary pedagogical strategy with significant benefits at all educational levels (Bernal et al., 2024). It is a methodology based on planned games that foster specific behaviors and the active participation of students (Sarabia & Bowen, 2023). In particular, during the COVID-19 pandemic, gamification was instrumental in practical courses to maintain motivation and learning despite social restrictions (Sarabia & Bowen, 2023). However, despite its innovative value, limited scientific evidence regarding its impact and sustainability in the post-pandemic context persists, especially in higher education.

Consequently, autonomous learning must become a central objective for both students and educators, particularly in university settings, which demand greater dynamism and active participation from learners (Fuentes et al., 2023). In this framework, the present research aims to identify how gamification can promote and enhance the benefits of autonomous learning, thereby contributing to the theoretical and practical development of its application in Latin America.

Methodology

This research is grounded in the procedures of a systematic review, which consists of a planned and organized search for scientific documents in official and reliable repositories to gather evidence on the study topic (García, 2022). Based on the stated objective, the study sought to answer the question: How has gamification been used to motivate autonomous learning in Latin American universities over the past six years?

To conduct this search, the PRISMA method was applied, establishing a series of selection criteria presented in Table 1.

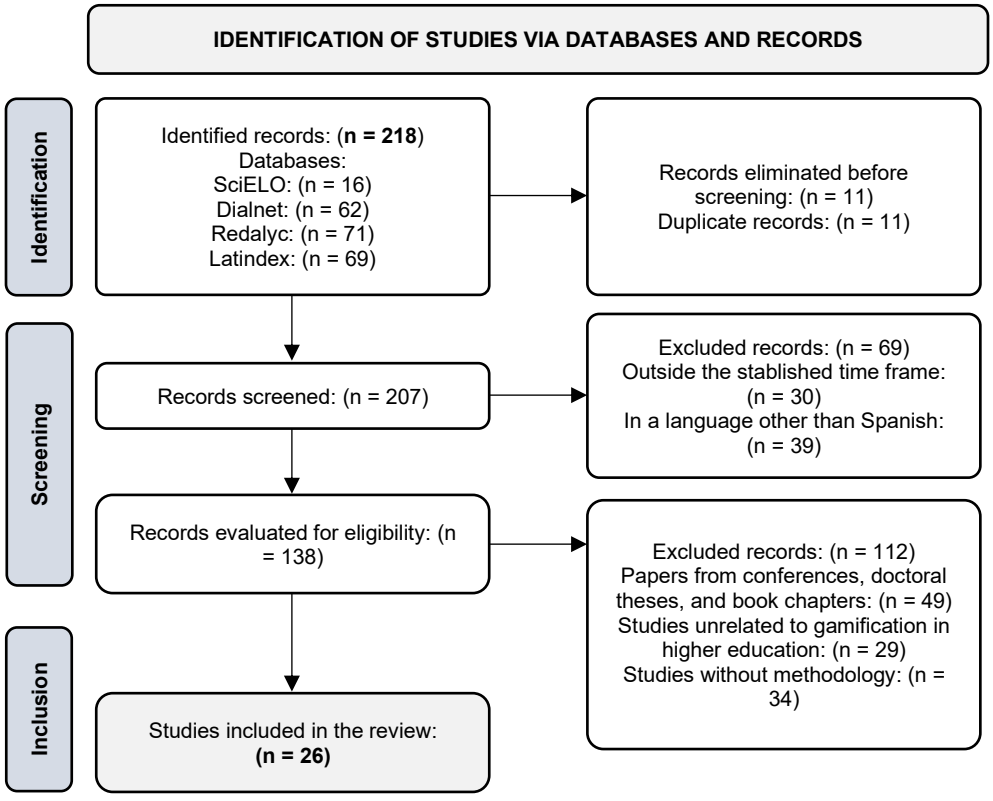
Table 1
Selection criteria

Aspect	Items
Language	Spanish
Scope	Latin America
Period	2020-2025
Source	Research focus
Type	Indexed journal articles
Methodology	Scientific articles

The consulted sources included Latindex, SciELO, Dialnet, and Redalyc, platforms recognized for their extensive and valuable catalog of research in the humanities and education. The search was conducted using the following keywords: gamification and higher education OR autonomous learning and higher education OR gamification and autonomous learning.

As a result, 218 articles were initially identified, which were subjected to the established inclusion and exclusion criteria, ultimately selecting 26 articles for analysis (see Figure 1).

Figure 1
PRISMA method



Results and discussion

After applying the established selection criteria, 26 documents that met the outlined requirements were identified (see Table 2).

Table 2
Selected intellectual production

Author(s) / Year	Title	Platform - Database	Country	Methodology	Findings
Reyes (2022)	Gamification and Collaborative Learning Online: An Analysis of Strategies in a Mexican University	Redalyc	Ecuador	Quantitative	Different gamification strategies provide the social opportunity to build knowledge through student community interaction.
Olivo & Moreno (2023)	Gamification and Ubiquitous Learning in Higher Education: Applying Learning Styles	Redalyc	Mexico	Quantitative	It is essential to employ practices such as gamification and ubiquitous learning to enhance academic performance, particularly student motivation.
Armesto et al. (2021)	Remote Teaching in Autonomy for Learning of Students from Latin American Universities	Redalyc	Peru	Systematic Review	After the pandemic, training processes have tended toward virtuality as an important tool; however, teacher planning aimed at achieving meaningful learning is necessary.
Marrufo et al. (2023)	Autonomous Learning in Distance Education for Psychology Students during COVID-19: A Systematic Review	Redalyc	Cuba	Systematic Review	Since 2020, there has been an increased interest in Latin America in research on autonomous learning, key for contextualizing changes defining contemporary society.
Saucedo et al. (2023)	Autonomous Learning and ICT as a Foundation in a Training Model	Redalyc	Mexico	Quantitative	The current educational model at all levels must promote autonomous learning, be based on the use of ICT, and genuinely seek to prepare for life.
Belisario & Hincapié (2024)	Educational Games: Unlocking the Potential of Playful Learning	Redalyc	Colombia	Documentary	In recent years, tools facilitating meaningful learning have emerged; thus, the contributions of play from individual experiences were explored.
Loáiciga & Chanto (2024)	Strategies that Foster University Student Motivation in the Classroom through Emerging Online Learning Tools	Redalyc	Costa Rica	Quantitative	Emerging tools from communication and digitalization technologies are important for achieving significant learning at the university level.

Pinzón et al. (2024)	Educational Practices Favoring Self-Regulated Learning of Students in Colombia	Redalyc	Colombia	Qualitative	Games, creativity, and teamwork develop metacognition.
Dávila (2024)	Implementation of Gamification Strategies to Improve Autonomous Learning in Agroindustrial Engineering Students	Dialnet	Peru	Quantitative	Gamification strategies allow for better outcomes in constructing significant knowledge.
Villacis et al. (2023)	Project-Based Learning and Gamification to Generate Active Learning in Students	Dialnet	Ecuador	Quantitative	It is key for educators to adopt innovative strategies that encourage project-based learning combined with gamified methodologies to create autonomous learning.
Prieto (2020)	A Systematic Review on Gamification, Motivation, and Learning in University Students	Dialnet	Costa Rica	Systematic Review	The gamification methodology is a powerful tool for university students to enhance decision-making based on their own reflective and significant knowledge.
Gudiño et al. (2024)	Gamification and Educational Ludification in the University Classroom	Dialnet	Peru	Qualitative	Gamification and ludification are techniques that awaken and foster motivation in the teaching and learning process.
Cuba & Pérez (2021)	Application of Gamification in Activity Design in Distance Education	Dialnet	Cuba	Systematic Review	Those responsible for the training process in universities face the commitment to educational innovation, thus they must incorporate strategies that allow for the development of autonomous and meaningful learning.
Castillo et al. (2023)	Gamification as a Tool for Developing Logical-Formal Thinking in University Students	Dialnet	Venezuela	Qualitative	Gamification is a methodology that demonstrates that teaching through planned play favors the development of logical and critical thinking, as well as autonomous learning.

Guamán et al. (2025)	The Application of Active Methodologies with Technology in the Classroom to Improve Motivation and Academic Performance in Secondary, Higher, and Bachelor Levels	Dialnet	Paraguay	Systematic Review	It is essential to introduce technology into classrooms so that, through innovation, meaningful learning can be achieved more efficiently.
Castellanos (2024)	The Student Portfolio and Gamification for Promoting Autonomous Learning	SciELO	Honduras	Quali-quantitative	Gamification is a powerful tool for promoting autonomous learning and achieving professional practice framed in effective knowledge application.
Cordero et al. (2024)	Gamification in Higher Education as a Technological Tool in the Learning Process	SciELO	Paraguay	Qualitative	Gamification is an expression of ICT that has become a fundamental change as it promotes the self-management of knowledge.
Poveda et al. (2023)	Gamification as a Learning Strategy in Higher Education	SciELO	Colombia	Qualitative-descriptive	The application of gamification strategies, specifically based on game theory, allowed the students studied to experience a high level of motivation.
Medina (2023)	Ludification Mediated by ICT for Autonomous Learning of University Students	SciELO	Peru	Systematic Review	Ludification has proven to be an educational resource of marked interest and demonstrated utility at the university level.
Ramos et al. (2024)	Impact of Gamification on University Students' Learning	SciELO	Mexico	Systematic Review	Gamification is a strategy that undeniably increases motivation, engagement, and interaction.
Heredia et al. (2020)	Gamification as a Technological Tool for Learning in Higher Education	SciELO	Mexico	Qualitative-documentary	For educators, using interactive and game-based tools helps motivate students to develop competencies and achieve meaningful learning.
Torres et al. (2022)	Gamification in Higher Education Teaching for Correct Implementation: Conceptual Cartography	SciELO	Mexico	Qualitative-documentary	Gamification and game-based learning must be planned to ensure their correct implementation.

Ulloa & Carcausto (2024)	Effect of Gamification on Active Learning: Systematic Review	SciELO	Peru	Systematic Review	Gamification contributes to students developing self-motivation to achieve autonomous learning and acquire problem-solving skills.
Rodríguez et al. (2020)	Alliance Between Learning and Play: Gamification as a Methodological Strategy that Motivates English Learning	Latindex	Ecuador	Explanatory quasi-experimental	Gamification is a useful methodology for awakening and maintaining student motivation for learning.
Guevara et al. (2020)	Digital Games through Mobile Applications as a Strategy in the Learning Process	Latindex	Ecuador	Explanatory quasi-experimental	Student performance in university increases with the use of technology, making routines enjoyable. This enjoyment reduces the perception of difficulty regarding the content.
Saucedo et al. (2021)	Gamification: Pedagogical Strategy in Higher Basic Education	Latindex	Ecuador	Documentary	Gamification is the efficient use of technology to maintain active learning.

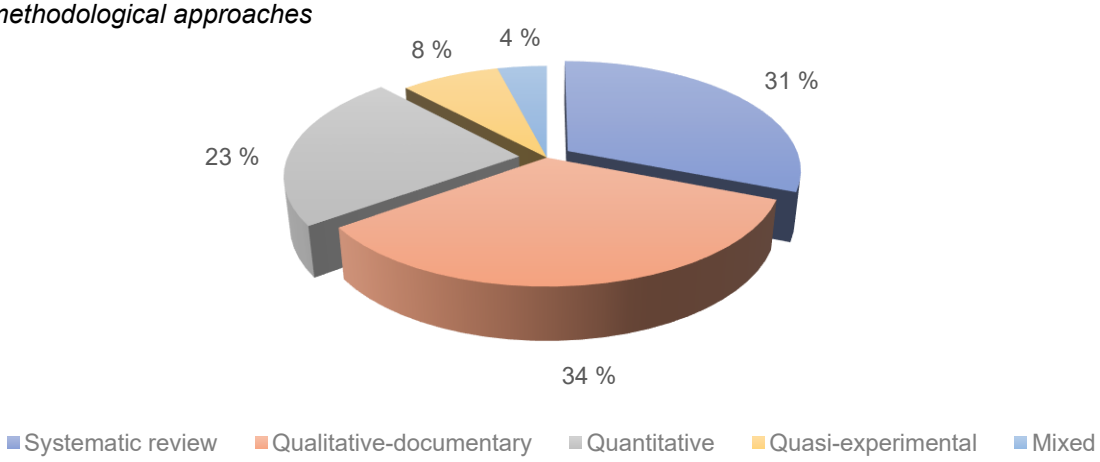
As a consequence of the pandemic, distance education became the primary alternative to ensure continuity in teaching, which prompted significant educational innovation in the region. This circumstance motivated numerous research studies aimed at underpinning the application of gamification to promote dynamic and competitive learning across various university programs (see Table 3).

Table 3
Number of intellectual production by year

Year	Quantity
2020	4
2021	3
2022	2
2023	7
2024	9
2025	1
Total	**26**

The research focused on understanding the application of gamification and identifying its benefits for students in various fields. Figure 2 graphically presents the predominant methodological approach in the analyzed studies. The theoretical works and systematic reviews confirmed the importance of the topic and its contextual relevance, explaining that even with the return to in-person modalities, technological methodologies continue to be employed to foster student motivation.

Figure 2
Trend of methodological approaches



As gamified strategies became established in classrooms, research in this field intensified across various Latin American countries, with the intellectual production detailed in Table 4.

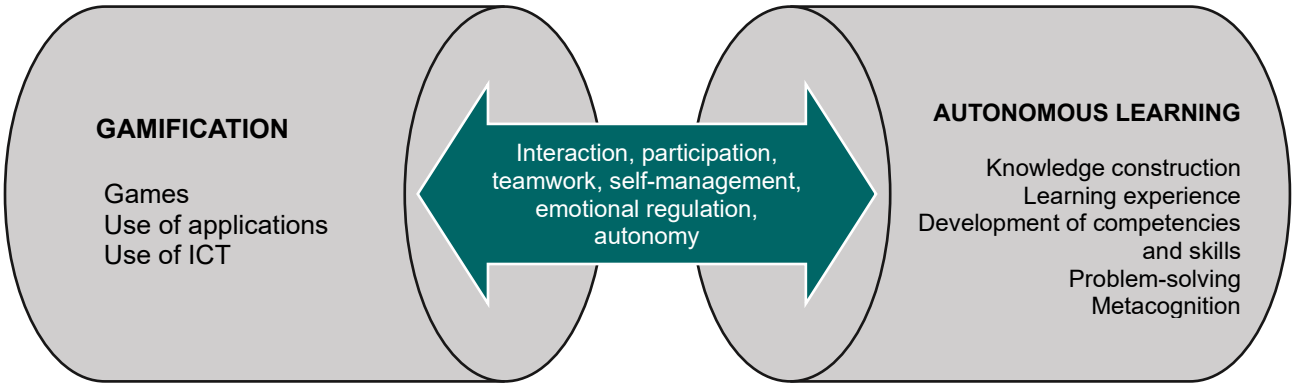
Table 4
Number of intellectual production by country

Country	Quantity
Ecuador	5
Mexico	5
Peru	5
Cuba	2
Colombia	3
Costa Rica	2
Paraguay	2
Honduras	1
Venezuela	1
Total	**26**

Countries such as Ecuador, Mexico, and Peru stand out for their diverse application of gamified strategies in university teaching, aimed at achieving significant and contextualized knowledge for their students. This evidence shows that gamification has become a practical expression of educational innovation, leveraging technological tools to promote personalized and relevant learning in professionalization, in line with local and global demands.

In the following figure, a summary of the analysis based on the information gathered from the selected articles is presented.

Figure 3
Gamification in autonomous learning



Educational innovation has been propelled since the pandemic by leveraging technological resources that ensure the delivery and acquisition of knowledge. Thus, distance education has been successfully established at the university level in the region (Reyes, 2022). However, it is essential for Latin American educational systems to continue deepening the use of these technological tools.

To achieve this, it is imperative that educators effectively incorporate these resources, promoting interaction and collaborative learning (Olivo & Moreno, 2023). In this regard, teachers must transform their perspective, focusing on developing competencies that respond to current competitiveness through the use of technologies (Cuba & Pérez, 2021). Therefore, educational planning should be oriented toward fostering autonomy and critical thinking in students (Armesto et al., 2021; Bernardo et al., 2023).

The path involves directing the teaching model toward contextual approaches, preparing students for life (Saucedo et al., 2023). Thus, the trend to promote autonomous learning in university students—both in-person and distance—has grown from basic education to higher education, including health sciences (Marrufo et al., 2023). This type of learning is closely linked to active motivation (Poveda et al., 2023; Rodríguez et al., 2020), making it necessary to identify technological tools that maintain interest and facilitate effective communication among students (Castillo et al., 2023). Moreover, these tools must entertain so that the process becomes real learning (Loáiciga & Chanto, 2024; Gudiño et al., 2024), an objective that gamification can achieve (Ulloa & Carcausto, 2024; Bernal et al., 2024).

For all these reasons, educators are called upon to design effective methodologies that leverage the advantages of gamification and creativity to achieve collaborative and autonomous learning in the professional realm (Reyes, 2022; Castellanos, 2024; Mena et al., 2024). Play facilitates enriching individual experiences for students (Belisario & Hincapié, 2024) and promotes self-regulation and metacognition (Pinzón et al., 2024), contributing to the construction of meaningful learning (Dávila, 2024; Sanjuán & Martínez, 2025; Rodríguez et al., 2022). Additionally, gamification fosters the development of soft skills (Villacis et al., 2023) and enhances decision-making, allowing students to build knowledge from their experiences, interactions, and personal emotions (Prieto, 2020). This strengthens individual commitment to learning (Ramos et al., 2024).

The overall assessment of gamification indicates that play is highly beneficial. Therefore, since the goal is for the knowledge constructed by the student to be useful in improving their quality of life in the current context, it is essential that this strategy of entertainment and teaching is supported by the use of information and communication technologies (ICT) (Guamán et al., 2025; Saucedo et al., 2021).

In higher education, gamification represents a channel through which technology transforms into knowledge (Saucedo et al., 2021; Flores et al., 2024), aimed at achieving professional excellence (Cordero et al., 2024; Medina, 2023). Thus, educators must not only select gamified tools to plan meaningful strategies but also capture students' interest using the ICT that they themselves use daily (Heredia et al., 2020; Torres et al., 2022). The results of this combination will be evident in academic performance, as students find learning more accessible and less difficult when they enjoy the process (Guevara et al., 2020).

Conclusions

Educational systems worldwide have undergone transformations that respond to the cognitive demands inherent in their contexts. Currently, knowledge requires not only to be systematized but also applied immediately.

Therefore, it is fundamental for today's professionals to develop skills such as synthesis ability, reflective thinking, solid mastery of theories, and the strengthening of competencies, among other aspects, to successfully face the challenges posed by a constantly evolving society. From this perspective, it is indisputable that educators must abandon traditional teaching paradigms and empower students to actively manage their own learning process. This goal can be achieved through gamification, a strategy that keeps students interested, entertained, and, above all, motivated to aspire to and achieve excellence.

In Latin America, various studies agree on the benefits that this methodology brings to the development of autonomous learning, showing positive results. The most significant aspect of its application is that it allows students to interact, foster proactivity, develop soft skills, and address complexity in a motivated and playful manner, contributing to substantial and relevant learning in the face of contemporary challenges.

Furthermore, research indicates that the impact of gamification at the university level is not consolidated if it is not integrated into the digital ecosystem. Therefore, it is essential for educators to plan and execute gamified strategies supported primarily by information and communication technologies (ICT). In this sense, evidence demonstrates the positive impact of this methodology on academic performance. Consequently, the challenge for current educators is to achieve technological mastery that allows them to guide students in an entertaining and effective manner in constructing their knowledge.

References

Armesto, M., Vallejos, R., Medina, C., & Bartra, K. (2021). La enseñanza remota en la autonomía para el aprendizaje de estudiantes de universidades latinoamericanas. *Innova Research Journal, 6*(3.2), 1-13. https://www.redalyc.org/articulo.oa?id=737880779001

Barrientos, P. (2018). Modelo educativo y desafíos en la formación docente. *Horizonte de la Ciencia, 8*(15), 175-191. https://www.redalyc.org/journal/5709/570960688014/html/

Belisario, E., & Hincapié, S. (2024). El juego educativo: desbloqueando el potencial del aprendizaje lúdico. *Revista Digital de Investigación y Postgrado, 5*(10), 247-258. https://www.redalyc.org/journal/7485/748579256009/

Bernal, A., Haro, E., Reyes, C., Arequipa, A., Zamora, I., Sandoval, M., & Campoverde, V. (2024). La gamificación como estrategia pedagógica en la educación matemática. *Ciencia Latina Internacional, 8*(3), 6435-6465. https://ciencialatina.org/index.php/cienciala/article/view/11834/17237

Bernardo, C., Rivera, C., Eche, P., & Lizama, V. (2023). Estrategias metacognitivas y aprendizaje autónomo en estudiantes de educación de la Universidad Nacional Federico Villarreal. *Horizontes. Revista de Investigación en Ciencias de la Educación, 7*(28), 1002-1012. https://doi.org/10.33996/revistahorizontes.v7i28.570

Castellanos, G. (2024). El portafolio estudiantil y la gamificación en beneficio de un aprendizaje autónomo. *EDUMECENTRO*. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2077-28742024000100080&lng=es

Castillo, J., Rodríguez, R., & D´Angelo, M. (2023). La gamificación como instrumento para el desarrollo del pensamiento lógico-formal en estudiantes universitarios. *Revista de Filosofía, 40*(103), 390-402. https://dialnet.unirioja.es/servlet/articulo?codigo=8827099

Castillo, L., Chavez, F., Maldonado, S., & Erazo, D. (2023). La integración de herramientas tecnológicas y gamificación para fomentar el aprendizaje activo en estudiantes de bachillerato. *Polo del Conocimiento*, 1205-1225. https://dialnet.unirioja.es/descarga/articulo/9254982.pdf

Cordero, L., López, C., Marcelo, F., Jiménez, P., & Del Pozo, E. (2024). Gamificación en educación superior como herramienta tecnológica en el proceso de aprendizaje. *LATAM Revista Latinoamericana de Ciencias Sociales y Humanidades, 5*(4), 750. https://doi.org/10.56712/latam.v5i4.2290

Cuba, E., & Pérez, I. (2021). Aplicación de la gamificación en el diseño de actividades en la educación a distancia. *Revista Cubana de Ciencias Informáticas, 15*(4), 366-380. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2227-18992021000500366&lng=es&tlng=es

Dávila, R. (2024). Implementación de estrategias de gamificación para mejorar el aprendizaje autónomo en estudiantes de Ingeniería Agroindustrial. *Revista de la Universidad del Zulia, 15*(42), 504-520. https://dialnet.unirioja.es/servlet/articulo?codigo=9376300

Flores, P., Acero, I., Trujillo, B., Quispe, M., & Atencio, C. (2024). Estrategias tecnológicas para la gamificación en la enseñanza. *Aula Virtual, 5*(12), e317. https://doi.org/10.5281/zenodo.12594082

Fuentes, S., Rosario, P., Valdés, M., Delgado, A., & Rodríguez, C. (2023). Autorregulación del aprendizaje: desafío para el aprendizaje universitario autónomo. *Revista Latinoamericana de Educación Inclusiva, 17*(1), 21-39. https://doi.org/10.4067/s0718-73782023000100021

García, F. (2022). Desarrollo de estados de la cuestión robustos: Revisiones sistemáticas de literatura. *Education in the Knowledge Society (EKS), 23*, e28600. https://revistas.usal.es/tres/index.php/eks/article/view/28600/27681

Guamán, M., Caraguay, S., Gudiño, J., Yaguana, A., & Peñaloza, K. (2025). La aplicación de metodologías activas con tecnología en el aula para mejorar la motivación y el rendimiento académico en los niveles medio, superior y bachillerato. *Latam: Revista Latinoamericana de Ciencias Sociales y Humanidades, 6*(1), 2962-2971. https://dialnet.unirioja.es/servlet/articulo?codigo=10080889

Gudiño, C., Bolaños, J., Melo, V., & Pazmiño, A. (2024). Gamificación y ludificación educativa en el aula universitaria. *Latam: Revista Latinoamericana de Ciencias Sociales y Humanidades, 5*(4), 1-12. https://dialnet.unirioja.es/servlet/articulo?codigo=9709708

Guevara, G., Verdesoto, A., Vera, F., & Guevara, C. (2020). Juegos digitales a través de aplicaciones móviles como estrategia en el proceso de aprendizaje. *Magazine de las Ciencias: Revista de Investigación e Innovación, 5*(CISE), 104-119. https://revistas.utb.edu.ec/index.php/magazine/article/view/1079

Heredia, B., Pérez, D., Cocón, J., & Zavaleta, P. (2020). La gamificación como herramienta tecnológica para el aprendizaje en la educación superior. *Revista Docentes 2.0, 9*(2), 49-58. https://doi.org/10.37843/rted.v9i2.144

Loáiciga, J., & Chanto, C. (2024). Estrategias que fomentan la motivación del estudiante universitario en el aula, a través de herramientas emergentes de aprendizaje en línea. *INNOVA Research Journal, 9*(3), 61-80. https://doi.org/10.33890/innova.v9.n3.2024.2582

Marrufo, D., Sirlopú, E., & Velásquez, F. (2023). Aprendizaje autónomo en la educación a distancia en estudiantes de Psicopedagogía durante la COVID-19: una revisión sistemática. *Revista Información Científica, 103*, e4306. https://www.redalyc.org/journal/5517/551777616013/

Medina, D. (2023). Ludificación mediada por las TIC para el aprendizaje autónomo de los estudiantes universitarios. *Revista de Investigación, 47*(111), 66-84. https://revistas.upel.edu.ve/index.php/revinvest/article/download/2629/2789/6191

Mena, L., Vallejo, N., Lindao, L., & Lindao, I. (2024). Visión integral de la pedagogía: nuevos enfoques en la resolución de problemas. *Revista Social Fronteriza, 4*(2). https://www.revistasocialfronteriza.com/ojs/index.php/rev/article/view/202

Olivo, E., & Moreno, R. (2023). Gamificación y aprendizaje ubicuo en la educación superior: aplicando estilos de aprendizaje. *Apertura, 15*(2), 20-35. https://www.redalyc.org/journal/688/68880260002/

Pérez, M. (2020). El aprendizaje autónomo en la educación superior, modalidad virtual: una lectura desde las antropotécnicas. *Revistas Unimilitar, 13*(1), 80-92. https://revistas.unimilitar.edu.co/index.php/ravi/article/view/4361/4308

Pina, V., Belda, J., Cerda, A., Cerniauskaite, V., & Tobarra, N. (2021). La integración de la tecnología educativa y la gamificación para el aprendizaje del inglés en un programa universitario de mayores. *Memorias del Programa de Redes de Investigación en Docencia Universitaria: Convocatoria 2021-22*, 1881-1882. https://dialnet.unirioja.es/servlet/articulo?codigo=8757146

Pinzón, M., Valero, C., & Miranda, J. (2024). Prácticas educativas que favorecen la formación en autorregulación del aprendizaje de los estudiantes en Colombia. *ACADEMO, 11*(3), 310-322. https://www.redalyc.org/journal/6882/688278763010/

Poveda, D., Limas, S., & Cifuentes, J. (2023). La gamificación como estrategia de aprendizaje en la educación superior. *Educación y Educadores, 26*(1), e2612. https://doi.org/10.5294/edu.2023.26.1.2

Prieto, J. (2020). Una revisión sistemática sobre gamificación, motivación y aprendizaje en universitarios. *Teoría de la Educación, 32*(1), 73-99. https://dialnet.unirioja.es/servlet/articulo?codigo=7174730

Quintero, J. (2024). Innovación académica para el fortalecimiento de los programas de Contaduría Pública en Colombia. *Región Científica, 3*(1). https://dialnet.unirioja.es/servlet/articulo?codigo=9839668

Ramos, M., Segovia, M., & Juarez, N. (2024). Impacto de la gamificación en el aprendizaje de estudiantes universitarios. *RIDE. Revista Iberoamericana de Investigación y Desarrollo Educativo, 14*(28), e659. https://doi.org/10.23913/ride.v14i28.1902

Reyes, W. (2022). Gamificación y aprendizaje colaborativo en línea: un análisis de estrategias en una universidad mexicana. *Revista de Educación, 17*(1), 24-35. https://www.redalyc.org/journal/4677/467769599003/

Rodríguez, Á., Cañar, N., & Gualoto, O. J. (2022). Los beneficios de la gamificación en la enseñanza de la educación física: revisión sistemática. *Dominio de la Ciencia, 7*(2), 662-681. https://dialnet.unirioja.es/descarga/articulo/8638034.pdf

CC BY

Rodríguez, L., García, D., Guevara, C., & Erazo, J. (2020). Alianza entre aprendizaje y juego: gamificación como estrategia metodológica que motiva el aprendizaje del inglés. *Revista Arbitrada Interdisciplinaria Koinonía, 5*(1), 370-391. https://doi.org/10.35381/r.k.v5i1.788

Romero, I., Alvarado, I., Cepeda, M., & Vega, C. (2024). El aprendizaje autónomo en la educación superior. *Ciencia Latina Internacional, 8*(4), 11369-11400. https://doi.org/10.37811/cl_rcm.v8i4.13306

Sanjuán, Á., & Martínez, J. (2025). Nuevo enfoque en el proceso de enseñanza-aprendizaje para la interrelación de conocimientos y formación de clínica/comunitaria. *Investigación y Educación en Enfermería, 26*(2), 150-159. http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0120-53072008000300015&lng=en&tlng=es

Sarabia, D., & Bowen, L. (2023). Uso de la gamificación en el proceso de enseñanza aprendizaje en carreras de ingeniería: revisión sistemática. *Episteme Koinonía. Revista Electrónica de Ciencias de la Educación, Humanidades, Artes y Bellas Artes, 6*(12), 20-60. https://doi.org/10.35381/e.k.v6i12.2519

Saucedo, E., Cardoso, E., & Peinado, J. (2023). El aprendizaje autónomo y las TIC como fundamento en un modelo de capacitación. *Acta Universitaria, 33*, e3754. https://www.redalyc.org/journal/416/41677664056/

Saucedo, M., Cedeño, G., & Hurtado, M. J. (2021). La gamificación: estrategia pedagógica en la educación básica superior. *Revista de Investigación e Innovación, 5*(CISE), 87-103. https://revistas.utb.edu.ec/index.php/magazine/article/view/1078

Torres, C. (2019). Aprendizaje autónomo en la educación universitaria a distancia mediada por las TIC. *La Pasión del Saber, (16)*, 16-25. https://lapasiondelsaber.ujap.edu.ve/index.php/lapasiondelsaber-ojs/article/view/57/63

Touriñán, J. (2019). La relación educativa es un concepto con significado propio que requiere concordancia entre valores y sentimientos en cada interacción. *Sophia, Colección de Filosofía de la Educación (26)*, 223-279. https://www.redalyc.org/journal/4418/441857903007/html/

Ulloa, D., & Carcausto, W. (2024). Efecto de la gamificación en el aprendizaje activo: revisión sistemática. *Horizontes. Revista de Investigación en Ciencias de la Educación, 8*(33), 931-944. https://doi.org/10.33996/revistahorizontes.v8i33.774

Villacis, C., Zea, C., Campuzano, S., & Chifla, M. (2023). Aprendizaje basado en proyectos y la gamificación para generar el aprendizaje activo en los estudiantes. *CIENCIA UNEMI, 15*(39), 35-43. https://dialnet.unirioja.es/servlet/articulo?codigo=8439395

AUTHORSHIP CONTRIBUTION:

1. Conceptualization: César Gerardo León Velarde, Luis Enrique Luna Campos
2. Data curation: Reynaldo Justo Mendoza Marin, Rocio Esmeralda Chavez Cabello
3. Formal analysis: César Gerardo León Velarde, Walter Luis Chucos Calixto
4. Funding acquisition: Rocio Esmeralda Chavez Cabello, Luis Enrique Luna Campos
5. Research: Reynaldo Justo Mendoza Marin, Walter Luis Chucos Calixto, César Gerardo León Velarde
6. Methodology: Reynaldo Justo Mendoza Marin, Walter Luis Chucos Calixto
7. Project management: César Gerardo León Velarde, Luis Enrique Luna Campos, Walter Luis Chucos Calixto
8. Resources: César Gerardo León Velarde, Luis Enrique Luna Campos
9. Software: Reynaldo Justo Mendoza Marin, Rocio Esmeralda Chavez Cabello
10. Supervision: César Gerardo León Velarde, Luis Enrique Luna Campos
11. Validation: Walter Luis Chucos Calixto, Rocio Esmeralda Chavez Cabello
12. Visualization: Luis Enrique Luna Campos, Reynaldo Justo Mendoza Marin
13. Writing – original draft: Reynaldo Justo Mendoza Marin, César Gerardo León Velarde
14. Writing – proofreading and editing: Reynaldo Justo Mendoza Marin, Luis Enrique Luna Campos, César Gerardo León Velarde