

# Didactic strategies for the development of critical thinking in secondary education: A systematic analysis

## Estrategias didácticas para el desarrollo del pensamiento crítico en educación secundaria: un análisis sistemático

1. Silvia Elena Bermeo Berrú

<https://orcid.org/0009-0005-8326-0960>

[sebermeob@ucvvirtual.edu.pe](mailto:sebermeob@ucvvirtual.edu.pe)

Universidad César Vallejo

Lima – Peru.

2. Ana Patricia Tasayco Diaz

<https://orcid.org/0000-0001-7418-5667>

[atasaycod@ucvvirtual.edu.pe](mailto:atasaycod@ucvvirtual.edu.pe)

Universidad César Vallejo

Lima – Peru.

3. Alejandro Sabino Menacho Rivera

<https://orcid.org/0000-0003-2365-8932>

[alejandro.131071@gmail.com](mailto:alejandro.131071@gmail.com)

Universidad César Vallejo

Lima - Peru.



Received: 02/02/2025 Accepted: 14/04/2025

2026. V6. N 1.

### Abstract

This article examines various didactic strategies aimed at strengthening critical thinking in secondary school students, highlighting their role in the development of complex cognitive competencies, reflective capacity and logical reasoning. The research was carried out using a qualitative methodology based on a systematic bibliographic review, guided by the PRISMA protocol. Recent publications (2019–2024) from recognized academic databases such as Scielo, SCOPUS, Google Scholar, and Dialnet were reviewed. The studies analysed show the positive impact of pedagogical approaches such as educational video games, critical analysis of advertising content and Problem-Based Learning (PBL) in the promotion of critical thinking. The findings indicate that active and collaborative strategies, especially those that combine digital tools with traditional methods, are particularly effective in stimulating reflection, informed debate and coherent argumentation. Likewise, the central role of the quality of interactions between students is highlighted as a key factor in consolidating this type of thinking.

**Keywords:** critical thinking, teaching strategies, secondary education.

## Resumen

Este artículo examina diversas estrategias didácticas orientadas al fortalecimiento del pensamiento crítico en estudiantes de nivel secundario, resaltando su papel en el desarrollo de competencias cognitivas complejas, capacidad reflexiva y razonamiento lógico. La investigación se llevó a cabo mediante una metodología cualitativa sustentada en una revisión bibliográfica sistemática, guiada por el protocolo PRISMA. Se revisaron publicaciones recientes (2019–2024) provenientes de bases de datos académicas reconocidas como Scielo, SCOPUS, Google Académico y Dialnet. Los estudios analizados evidencian el impacto positivo de enfoques pedagógicos como los videojuegos educativos, el análisis crítico de contenidos publicitarios y el Aprendizaje Basado en Problemas (ABP) en la promoción del pensamiento crítico. Los hallazgos indican que las estrategias activas y colaborativas, especialmente aquellas que combinan herramientas digitales con métodos tradicionales, resultan especialmente efectivas para estimular la reflexión, el debate fundamentado y la argumentación coherente. Asimismo, se destaca el papel central de la calidad de las interacciones entre los estudiantes como un factor clave para consolidar este tipo de pensamiento.

**Palabras clave:** pensamiento crítico, estrategias didácticas, educación secundaria.

## Introduction

The critical-personalist or post-critical approach is based on the premise that traditional educational theory has addressed school subjects with a normative perspective and has explained the learning process through psychological viewpoints that seldom capture behavior in diverse sociocultural environments. In contrast to this view of education, this approach posits that when students learn to yield, modify, or create their macro or micro constitutive space, their identity merges with the subject matter. This process, guided by a critical and identity-driven project, is referred to as autonomy or proactivity within the school structure and is defined as the channeling of space as identity.

According to Peris Reig (2023), the development of critical thinking constitutes a central aspect of educational processes in numerous countries, framed within the key competencies promoted by both the European Union and various international education summits. We live in a context marked by uncertainty and a constantly evolving labor market, which requires students to acquire competencies that enable them to actively face these changes. This entails an organized integration of knowledge, skills, and ethical considerations.

Villegas & Garay (2023) note that critical thinking possesses specific characteristics that must be considered when designing educational activities in schools. They define this type of thinking as a cognitive, emotional, and motivational process that allows individuals to engage with information and make well-founded judgments. Most authors agree that it is a cyclical process that begins with doubt about a specific topic, followed by the search, comparison, and analysis of information. From this process, judgments and positions are constructed, which are then shared, debated, and, if necessary, refuted based on various sources.

Finally, Ruiz Contreras (2022) asserts that critical thinking, in its most rigorous sense, is closely related to the logical analysis of sources and evidence. He describes it as a consciously regulated mental process that requires specific knowledge and skills to identify, interpret, analyze, and argue through analytical and demonstrative judgments. Furthermore, he conceives it as a guided reasoning process that starts from premises and formulates deep questions to explain why the world is as it is.

Complementarily, critical thinking involves creating and arguing from premises, solving problems, making purchasing decisions, commercial proposals, diagnostic studies, and medical prescriptions, as well as recommending social or security policies. However, underlying these activities is often unclear reasoning that needs to be strengthened. It is not merely about seeking information but knowing how to store, transfer, and apply it in defense of decisions made in daily life.

It is a common misconception to assume that accumulating diverse knowledge is equivalent to having sufficient material to defend a reasoned position. In daily life, multiple judgments are made that are more or less valid or acceptable depending on the reasoning that supports them and the means to implement a program; the same occurs in teaching, although it becomes even more evident due to the directed nature of the classroom (Caro Seminario, 2021).

Therefore, Nieto-Ramos et al. (2025) emphasize that critical thinking has become a fundamental value for the development of responsible and engaged citizenship. In this context, education must adopt firm stances on the type of training needed to contribute to this goal. Consequently, the curriculum incorporates a transversal approach that, particularly in secondary education, promotes the development of basic competencies as a foundation for achieving comprehensive education for students.

In this context, the present article addresses the development of critical thinking in secondary school students, highlighting the importance of active methodologies and the use of technology to foster reflective, autonomous, and critical education. Additionally, it explores the theoretical foundations that support the teaching of critical thinking and analyzes the factors that influence its development, aiming to provide a comprehensive view of how this type of reasoning can be consolidated in students through an appropriate pedagogical approach.

## Methodology

The methodological approach adopted in this study is based on a systematic literature review of didactic strategies for developing critical thinking in secondary education. This methodology allows for the identification, analysis, and evaluation of various pedagogical practices employed in the educational field to foster critical thinking in secondary students, thereby contributing to the understanding of how these strategies affect the teaching-learning process and promote the development of advanced cognitive skills.

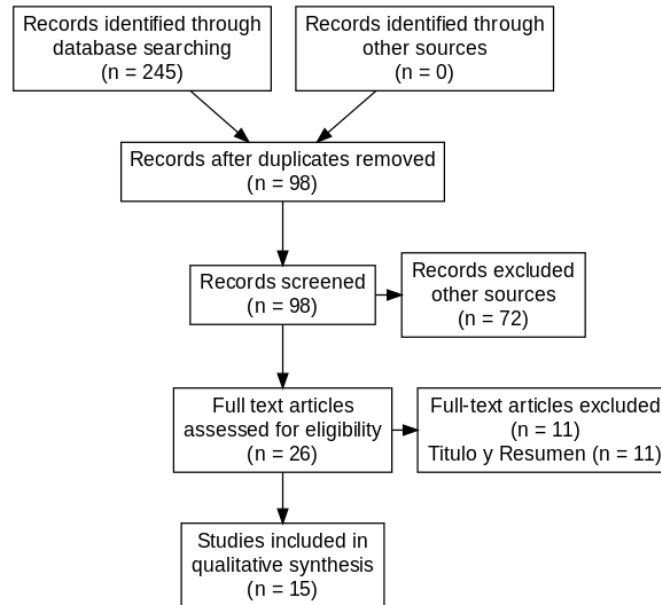
The research was conducted following four fundamental procedures: identification, selection, eligibility, and inclusion. In the identification phase, key descriptors related to critical thinking, didactic strategies, and secondary education were established. For the search in specialized academic databases, combinations of descriptors were employed with Boolean operators, such as "critical thinking AND didactic strategies AND secondary education" or "cognitive development AND educational methodologies AND secondary." These terms allowed for the identification of a total of 245 records addressing topics such as the use of pedagogical methods, the development of critical thinking, and classroom strategies implemented in the context of secondary education. To ensure the timeliness and relevance of the studies, a temporal inclusion criterion was established for the period between 2018 and 2023.

During the selection stage, "OPEN ACCESS" filters were applied to ensure that documents were freely accessible. Duplicates were removed using the Boolean operator "NOT" (for example, "NOT duplicates"), resulting in a total of 98 unique documents. These studies were preliminarily reviewed to verify that they met the initial criteria defined in the research.

In the eligibility phase, stricter criteria were applied to select only those studies that explicitly addressed didactic strategies aimed at developing critical thinking at the secondary level. Boolean operators such as "AND" were used to combine relevant terms in the search, for example, "didactic strategies AND critical thinking AND secondary education." Summaries of the documents were reviewed, excluding those that did not meet the inclusion criteria. As a result, 72 studies were eliminated, leaving a total of 26 relevant studies. These documents were exported in CSV (Excel) format, facilitating a more detailed review of the summaries and ensuring that each study aligned with the research objectives.

Finally, in the inclusion phase, a thorough review of the selected studies was conducted. After this analysis, a corpus of 15 key studies was defined that effectively addressed the use of didactic strategies to promote critical thinking in secondary students. The selection of these works was based on a structured framework that included: the explicit inclusion of the development of didactic strategies as the central focus of the study, clarity in the presentation of results, and theoretical justification based on the analysis of the educational context and applied pedagogical practices. Additionally, aspects such as the precise formulation of each research objective, specification of the eligibility criteria used, and the application of systematic search strategies in specialized academic databases were considered.

**Figure 1**  
PRISMA flow diagram of the study selection process for the systematic review



## Results

Each of the studies was analyzed to ensure the relevance and quality of the collected data, taking into account the limitations and potential biases of the included studies. The inclusion process allowed for a comprehensive and in-depth view of the didactic strategies that foster the development of critical thinking in secondary education, providing a solid foundation for the conclusions of this work. The selected studies are presented in Table 1.

**Table 1**  
Selected records for qualitative analysis

N°	Authors	Contribution	Journal
1	Ramírez (2021).	This study highlights the use of video games as a strategy to cultivate critical thinking in secondary students in Colombia and Latin America, advocating for the creation of realistic role-playing games to enhance young people's analytical and reflective capacity. It also emphasizes the importance of critical thinking in peace education, suggesting that its development can foster engaged and reflective citizenship in response to their sociopolitical environment.	Web of Science

2	Caro Seminario & Travieso (2021).	The proposed system of creative activities includes text and news analysis to develop clarity in conclusions, as well as media analysis to foster critical reflection. It also addresses environmental issues, where students propose original solutions, and uses images to stimulate creativity. Active participation is promoted through presentations and discussions, enriching collective learning.	Dialnet
3	Koh et al. (2019).	It concludes that not only the quantity of interactions promotes critical thinking, but also the reciprocity in responses and the distance between interactions within the network. Furthermore, students with a notable history in critical reading and those who generated more content will achieve better results. The study highlights the importance of structuring quality interactions, balancing breadth and depth of dialogue to guide students toward more meaningful interactions, offering greater support to those with lower prior performance.	MDPI
4	Blanco López et al. (2017).	The article emphasizes the importance of developing critical thinking in scientific education through didactic strategies, such as analyzing advertisements and using role-playing games. These activities enable students to evaluate the credibility of information, argue effectively, and reflect on relevant topics such as biotechnology and health, preparing them to make informed decisions and actively participate in society.	Dialnet
5	Quispe Anchayhua (2025).	The article underscores the importance of critical thinking in shaping analytical and reflective students, highlighting that pedagogical strategies such as Problem-Based Learning (PBL), Project-Based Learning (PjBL), and argument mapping are effective in strengthening this skill. It emphasizes the crucial role of the teacher as a mediator in implementing these methodologies and the need to train educators to create learning environments that foster analysis, decision-making, and student motivation to apply these skills beyond the classroom.	Scielo
6	Bermúdez Mendieta (2021).	PBL is established as an effective methodology for enhancing critical thinking in secondary students, promoting the resolution of real problems and the application of active learning strategies. The reviewed studies indicate that PBL not only increases students' analytical and evaluative capacity but also fosters self-regulation and metacognitive skills, essential for autonomous learning. Furthermore, implementing PBL in the classroom is associated with a more robust development of social and emotional competencies, suggesting that this methodology can be a fundamental pillar in contemporary education to prepare students for the challenges of today's world.	Dialnet
7	Rodríguez-Sabiote et al. (2022).	Educational motivation and work skills act as mediating factors in this relationship, suggesting that fostering these aspects can enhance critical learning. The main contribution of the study is the direct connection between teamwork and the development	Elsevier

Bermeo, S., Tasayco, A. & Menacho, A. (2026). Didactic strategies for the development of critical thinking in secondary education: a systematic analysis. *Revista InveCom*, 6 (1). 1-10. <https://zenodo.org/records/15258114>

		of critical thinking, highlighting the importance of promoting collaborative work and associated skills to improve learning in the educational environment.	
8	Chávez et al. (2024).	Through the proposed historical method, critical and reflective skills such as source analysis, external and internal critique, and historical interpretation are developed. Additionally, it fosters the capacity to question and reflect on past events, contributing to a deeper and contextualized understanding of history. These skills prepare students for informed participation in society.	Scielo
9	Castro-Valle et al. (2023).	The article emphasizes that the implementation of the PBL strategy significantly improves critical thinking in secondary students. It shows that PBL enhances higher-order cognitive skills, which is crucial in an educational context where access to information is easy, but critical analysis is a challenge. This methodological approach promotes active, student-centered learning, contributing to comprehensive development.	Scielo
10	Espinola-Calderón et al. (2023).	The research focused on examining how literary conversation influences the development of Critical Thinking (CT) in secondary students. Results demonstrated that the experimental group experienced a significant improvement in critical thinking skills. Literary conversation proved to be an effective strategy for enhancing CT by providing students the opportunity to express themselves safely and fluently. The careful selection of texts tailored to their interests and needs played a crucial role, contributing not only to the development of CT but also to autonomy and emotional intelligence among participants.	Scielo
11	Zhang et al. (2025).	The central value of this study is to demonstrate how cooperative learning contributes not only to the development of writing skills in English as a foreign language but also to strengthening critical thinking among secondary students. Through teamwork, students interact, share viewpoints, and benefit from mutual feedback, creating an environment conducive to analysis and reflection. The essential role of the teacher in this process is highlighted, as their guidance helps students appropriate critical thinking, avoiding confusion regarding its purpose and meaning.	Elsevier
12	Tasgin & Dilek (2023)	The central finding of this research shows that dispositions toward critical thinking act as a significant mediating factor between self-efficacy and problem-solving competencies in secondary students. Data reveal a positive relationship between critical thinking, self-efficacy, and the ability to face challenges, thus highlighting its fundamental role in strengthening these skills. This result underscores the need to promote critical thinking as an essential part of students' academic development.	Elsevier

13	Saavedra-Pizarro (2024).	The study highlights the importance of cultivating critical thinking skills in basic education students, evidencing that a significant proportion of them exhibit low to medium levels in this area. It emphasizes the need for adequate training for teachers and the implementation of methodologies that encourage analysis, argument evaluation, and information interpretation to enhance the intellectual and academic development of learners.	Scielo
14	Liang & Fung (2023).	The main contribution of the article lies in its innovative approach to integrating critical thinking into English as a second language classes. Conducted in a primary school in Hong Kong, the study explores the use of two key pedagogical tools: exploratory dialogue and WebQuests, as means to foster and develop critical thinking among students. Findings suggest that allowing students to engage in structured group discussions (exploratory dialogue) promotes explicit reasoning and analysis, enhancing their ability to think critically in second language learning contexts.	Elsevier
15	López Mendoza et al. (2021).	The study on teaching critical thinking in Ecuadorian classrooms reveals that although appropriate strategies are used, there is a lack of metacognitive and motivational skills among students. Additionally, there is an absence of collaboration among teachers and administrative rigidity that hinders interdisciplinary work. The main contribution of the study is the need for teacher training and a more integrated approach that fosters the development of critical thinking in students, enabling them to face and solve problems effectively in their daily lives.	Scielo

## Discussion

The development of critical thinking in the educational sphere, particularly in secondary education, necessitates instructional planning that incorporates active, student-centered methodologies. As noted by Rodríguez-Torres et al. (2025), the implementation of didactic strategies oriented toward critical thinking must include the promotion of self-directed learning, cooperative work, and the holistic development of students. This involves utilizing methodologies that enhance key competencies such as learning to learn, learning to collaborate, solving problems, and independently undertaking projects.

From this perspective, Flores et al. (2023) propose a person-centered educational approach that introduces innovative methodologies such as WebQuests, inquiry-based learning, case studies, task-based learning, and inquiry models concerning teaching practice. This approach suggests a paradigm shift that recognizes student diversity as a key element of the educational process. It emphasizes the need to consider different learning paces and styles, cultural diversity, as well as individual capabilities and potentials, all linked to the variety of content addressed in the didactic units.

In line with this methodological transformation, Espinosa (2024) analyzes the growing incorporation of Problem-Based Learning (PBL) across various educational levels. Although PBL has shown positive results, especially in higher education and vocational training programs, there are significant gaps in the literature regarding its implementation in other levels and areas, such as early childhood or arts education. Moreover, Espinosa warns that many studies focused on PBL prioritize student satisfaction over educational attention to those students who do not fully integrate into this methodology.

These observations highlight the need to design more inclusive and flexible strategies that not only enhance critical thinking in students who easily adapt to active methodologies but also in those who require a more individualized approach. The current challenge lies in finding a balance between pedagogical innovation and attention to diversity, ensuring that the development of critical thinking is an attainable goal for all students, without exclusions.

Banegas et al. (2024) explain that Cooperative Learning is based on collaboration among students to achieve a common goal, grounded in social and cognitive learning theories. This approach contrasts with competitive learning, where the success of some implies the failure of others, and individualistic learning, where each student pursues their goals without interaction with peers. While often confused with collaborative learning, the authors clarify that, although these terms are frequently used interchangeably, they present substantial differences. Collaborative learning tends to be more flexible and indeterminate, with interactions and activities emerging spontaneously throughout the process. In contrast, cooperative learning is more structured: goals are clearly defined, roles assigned, and tasks distributed, either equitably or heterogeneously, allowing for individual objectives within group work.

Complementing this perspective, Espinoza-Mantuano & Vega-Intriago (2024) indicate that in cooperative learning, the realization of objectives fosters a higher commitment from students, who assume predefined roles. However, these roles should not be viewed as permanent or limiting; rather, students are expected to rotate in their functions, taking on diverse responsibilities as they develop teamwork skills and reflect on their learning process.

From a practical viewpoint, Salgado et al. (2022) suggest structuring interdependent and heterogeneous activities so that students actively cooperate from their roles to achieve the established objectives. They highlight that using strategies such as group dynamics or tasks with individual accountability enhances the effectiveness of cooperative learning. Additionally, it is recommended that teams consist of at least pairs, allowing for unique forms of interaction, especially during initial sessions. In this early stage, students begin to replicate work patterns that, over time, shape a solid collaborative structure within the classroom.

Moreira et al. (2024) emphasize that project-based teaching constitutes an active methodology that promotes the comprehensive development of students by fostering diverse capabilities through a collaborative learning experience focused on solving real problems. This technique, guided by the teacher, encourages students to actively seek solutions, culminating their learning in a tangible final product. The approach has a clear constructivist basis, considering cooperative work as the core of learning and recognizing error as a natural part of the educational process.

In the same vein, Batista & Bauta (2023) underline that learning projects, as student-centered methodological strategies, allow for meaningful reflection at conceptual, cognitive, and emotional levels. These projects contribute to scientific, professional, and civic education, articulating multiple strategies that adapt to the characteristics of the group. From planning to final evaluation, project-based learning (PBL) unfolds within a global framework that frequently encompasses all the content of a subject.

However, as Roa & Cárdenas (2023) warn, the implementation of innovative proposals like fostering critical thinking through active methodologies faces multiple challenges. Its application in the classroom represents a complex scenario that requires consideration of social, political, and economic factors, alongside attention to diversity, inclusive educational regulations, and collaboration with families and the educational community. Moreover, it is necessary to anticipate adjustment and control mechanisms that ensure the viability and sustainability of these strategies over time.

Consequently, the school serves as the primary setting for relationships between teachers and students, but it is also a space where the ideas and opinions expressed by both students and teachers in the teaching-learning processes matter, along with other types of structures that may either facilitate or restrict the development of individual and group learning. One such type of "communication," so to speak, pertains to norms regarding all types of educational issues, whether political, social, or even pedagogical or didactic. These "communications" represent a significant element affecting the work of teams and teaching staff as they form and equip themselves with tools that facilitate a more meaningful change in educational action. Some of the restrictions that can be considered in our ordinary educational practice, in relation to diversity and the creation of an inclusive environment in the school institution, will be discussed.

## Conclusions

Fostering critical thinking in secondary students is fundamental for their holistic development and for preparing them to face the challenges of contemporary society. The various pedagogical strategies analyzed, such as the use of video games, advertisement analysis, and PBL, demonstrate that the combination of active and collaborative approaches significantly enhances the consolidation of advanced cognitive skills.

The reviewed studies highlight the relevance of interactions in the learning process, whether in digital or face-to-face environments. However, it is the quality of these interactions that is crucial for encouraging deep

reflection and critical reasoning, beyond mere participation. In this context, hybrid learning, which merges digital tools with traditional methods, emerges as the most effective approach for cultivating critical thinking.

On the other hand, collaborative work, mediated by factors such as motivation and work skills, is revealed as an essential element for the development of critical skills. The research suggests that collaborative strategies should be designed considering these internal factors of students to maximize their impact on promoting critical thinking.

Finally, the use of digital environments can be a powerful tool for enhancing critical thinking, provided that analytical reflection, evidence-based debate, and solid argumentation are encouraged. However, the teacher's role remains essential, not only as a facilitator of resources but also as a guide who stimulates and directs reflective thinking in students.

## References

- Banegas, G. J. H., Zhingre, F. M. O., Adrián, A. F. V., & Lomas, L. M. V. (2024). El aprendizaje colaborativo en el fomento de la convivencia escolar: una visión que trasciende el aula. *Revista Social Fronteriza*, 4(4), e44391-e44391. [https://doi.org/10.59814/resofro.2024.4\(4\)391](https://doi.org/10.59814/resofro.2024.4(4)391)
- Batista, O. L. & Bauta, Y. A. (2023). Análisis del empleo del método aprendizaje basado en proyecto en el proceso enseñanza aprendizaje en la asignatura optimización matemática II. *Didasc@ lia: Didáctica y Educación*. <https://dialnet.unirioja.es/servlet/articulo?codigo=9277155>
- Bermúdez Mendieta, J. (2021). El aprendizaje basado en problemas para mejorar el pensamiento crítico: revisión sistemática. *Innova Research Journal*, 6(2), 77-89. <https://doi.org/10.33890/innova.v6.n2.2021.1681>
- Blanco López, A., España Ramos, E., & Franco-Mariscal, A. J. (2017). Estrategias didácticas para el desarrollo del pensamiento crítico en el aula de ciencias. *Ápice. Revista de Educación Científica*, 1(1), 107-115. <https://doi.org/10.17979/arec.2017.1.1.2004>
- Caro Seminario, N. J., & Travieso, D. (2021). Sistema de actividades para el desarrollo del pensamiento crítico en estudiantes de educación secundaria. *Praxis Educativa*, 25(3), 1-24. <https://doi.org/10.19137/praxiseducativa-2021-250309>
- Castro-Valle, L. A., Terrones-Marreros, M. A., Duran-Llano, K. L., y Oscar-Santiago, G. M. (2023). Estrategia aprendizaje basado en proyectos para desarrollar el pensamiento crítico en estudiantes de secundaria. *Revista Arbitrada Interdisciplinaria KOINONIA*, 8(2), 149–150. <https://doi.org/10.35381/r.k.v8i2.2868>
- Chávez, R. L., Sarango, M. A. C., Sandoval Peña, J. M., & Gallo García, J. E. (2024). Método histórico y pensamiento crítico en estudiantes de secundaria. *Universidad, Ciencia y Tecnología, Número Especial 2024*, 229-238. <https://doi.org/10.47460/uct.v28iSpecial.792>
- Espinola-Calderón, J. L., Terrones-Marreros, M. A., Alcalde-Mosqueira, M. R., & Gerónimo-Miguel, O. S. (2023). La conversación literaria y su influencia en el desarrollo del pensamiento crítico en estudiantes. *Revista Arbitrada Interdisciplinaria KOINONIA*, 8(2, Edición Especial 2). <https://doi.org/10.35381/r.k.v8i2.2864>
- Espinosa, G. A. B. (2024). El aprendizaje basado en proyectos (ABP) como estrategia metodológica en la asignatura de emprendimiento en la Institución Educativa Simón Bolívar en el municipio de Guacarí. *Revista Boletín Redipe*, 13(3), 216-226. <https://doi.org/10.36260/rbr.v13i3.2101>
- Espinoza-Mantuano, A. G., & Vega-Intriago, J. O. (2024). La innovación educativa desde una estrategia motivacional para favorecer el aprendizaje colaborativo en estudiantes del subnivel básico superior. *MQRInvestigar*, 8(1), 1098-1118. <https://doi.org/10.56048/MQR20225.8.1.2024.1098-1118>
- Flores Chicón, C. S., De la Cruz Flores, G., Domínguez Herrera, E., & Pérez Alcántara, B. D. (2023). Revisión teórica acerca del conocimiento geográfico potente. Un nuevo enfoque conceptual en la educación geográfica. *Didáctica Geográfica*, (24). <https://dialnet.unirioja.es/servlet/articulo?codigo=8964357>
- Koh, E., Jonathan, C., & Tan, J. P.-L. (2019). Exploring conditions for enhancing critical thinking in networked learning: Findings from a secondary school learning analytics environment. *Education Sciences*, 9(4), 1-18. <https://doi.org/10.3390/educsci9040291>
- Liang, W., & Fung, D. (2023). Fostering critical thinking in English-as-a-second-language classrooms: Challenges and opportunities. *Thinking Skills and Creativity*, 50, 101400. <https://doi.org/10.1016/j.tsc.2023.101400>
- López Mendoza, M., Moreno Moreno, E., Uyaguari Flores, J. F., & Barrera Mendoza, M. P. (2021). El desarrollo del pensamiento crítico en el aula: testimonios de docentes ecuatorianos de excelencia. *Areté. Revista digital del doctorado en educación de la Universidad Central de Venezuela*, 8(15), 161–180. <https://doi.org/10.55560/ARETE.2022.15.8.8>

- Moreira, S. M. M., Figueroa, N. V. P., Soledipa, Y. P. B., & Castaño, J. L. A. (2024). El cuento infantil como estrategia pedagógica para el desarrollo del lenguaje oral en alumnos de educación básica. *Ciencia Latina Revista Científica Multidisciplinar*, 8(1), 8313-8329. [https://doi.org/10.37811/cl\\_rcm.v8i1.10158](https://doi.org/10.37811/cl_rcm.v8i1.10158)
- Nieto-Ramos, M., Puig-Gutiérrez, M., & Rodríguez-Marín, F. (2025). Relación entre educación para la ciudadanía y educación ambiental en el currículo de educación infantil. *Revista Fuentes*, 27(1), 79-93. <https://doi.org/10.12795/revistafuentes.2025.25039>
- Peris Reig, L. (2023). *Transformando el espacio del aula: innovación en el espacio del aula y percepción docente sobre los nuevos espacios escolares*. (Tesis doctoral. Universidad Complutense de Madrid) <https://hdl.handle.net/20.500.14352/88293>
- Quispe Anchayhua, M. (2024). Estrategias didácticas para fortalecer el pensamiento crítico en estudiantes de nivel secundario: un análisis de prácticas pedagógicas efectivas. *Revista InveCom*, 5(3), 1–8. <https://doi.org/10.5281/zenodo.14484019>
- Ramírez, F. N. (2021). Pensamiento crítico y videojuegos en estudiantes de educación básica secundaria. *Academia y Virtualidad*, 14(2), Article 2. <https://doi.org/10.18359/ravi.5369>
- Roa, A. F. D. A., & Cardenas, S. G. G. (2023). El fomento del pensamiento crítico en la educación rural: una propuesta desde la educomunicación. *Revista Latinoamericana Ogmios*, 3(8), 10-23. <https://doi.org/10.53595/rlo.v3.i8.076>
- Rodríguez-Sabiote, C., Olmedo-Moreno, E. M., & Expósito-López, J. (2022). The effects of teamwork on critical thinking: A serial mediation analysis of the influence of work skills and educational motivation in secondary school students. *Thinking Skills and Creativity*, 45, 101063. <https://doi.org/10.1016/j.tsc.2022.101063>
- Rodríguez-Torres, Á. F., Guanga-Cadme, W. G., Ramos-Maita, M. M., & Yagual-Mero, A. N. (2025). Impacto de las rutinas de pensamiento en el desarrollo del pensamiento crítico y el rendimiento académico en estudios sociales. *Dominio de las Ciencias*, 11(1), 2366-2390. <https://doi.org/10.23857/dc.v11i1.4300>
- Ruiz Contreras, P. (2022). Estrategias y habilidades del pensamiento crítico en los estudiantes de estudios generales de la Universidad Nacional de San Marcos. (Tesis de maestría. Universidad Nacional de Educación Enrique Guzmán y Valle) <https://repositorio.une.edu.pe/handle/20.500.14039/8691>
- Saavedra-Pizarro, L. (2024). Pensamiento crítico en estudiantes de educación básica regular. *Horizontes Revista de Investigación en Ciencias de la Educación*, 8(33). <https://doi.org/10.33996/revistahorizontes.v8i33.764>
- Salgado, L. N. P., Pimentel, J. F. F., Arenas, R. D., & Chavagari, R. G. B. (2022). El aprendizaje cooperativo en la educación básica: una revisión teórica. *Revista Metropolitana de Ciencias Aplicadas*, 5(1), 6-11. <https://doi.org/10.62452/myd3c973>
- Tasgin, A., & Dilek, C. (2023). The mediating role of critical thinking dispositions between secondary school students' self-efficacy and problem-solving skills. *Thinking Skills and Creativity*, 50, 101400. <https://doi.org/10.1016/j.tsc.2023.101400>
- Villegas, D. R. A., & Garay, J. P. P. (2023). Autorregulación del aprendizaje y pensamiento crítico en estudiantes universitarios. *Revista Ecuatoriana de Psicología*, 6(15), 96-108. <https://doi.org/10.33996/repsi.v6i15.92>
- Zhang, Y., Qi, W., Xia, C., Sun, H., & Chen, L. (2025). Exploring the effect of cooperative learning on senior high school students' critical thinking in EFL writing: An intervention study. *Thinking Skills and Creativity*, 45, 101013. <https://doi.org/10.1016/j.tsc.2025.101013>