

Generic Competencies: Critical Reading as a Driver of Educational Sustainability

Competencias genéricas: la lectura crítica como motor de sostenibilidad educativa

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Abstract

This research aims to analyze how critical reading serves as the central axis for strengthening generic competencies in university education, in alignment with the framework of SDG 4: Quality Education. The methodology applied was qualitative in nature, using an action-research method developed in phases, which included the formulation of a comprehensive academic strengthening plan, training in sustainability, and the application of a characterization instrument to a sample of 222 first-semester students from the Faculty of Education Sciences at the University of Pamplona. Likewise, the results revealed a gap in the leveling of generic competencies, specifically in reading comprehension, critical thinking, reflection, and analytical capacity. In conclusion, it is recognized that critical reading is not only an indispensable requirement for academic success but also an essential component in the formation of critical citizens committed to social and environmental sustainability, which calls for the implementation of innovative pedagogical strategies that integrate reading, writing, and critical thinking in higher education.

Keywords: Sustainable education, Critical Reading, Higher education, Quality education, Sustainable Development Goal (SDG)

Resumen

Esta investigación tiene como objetivo central analizar cómo la lectura crítica es el eje central del fortalecimiento de las competencias genéricas en la formación universitaria alineándose con el marco del ODS 4: Educación de calidad. La metodología aplicada fue de naturaleza cualitativa con un método de investigación-acción desarrollado en fases, que incluyó la formulación de un plan de fortalecimiento académico integral, la capacitación en sostenibilidad y la aplicación de un instrumento de caracterización a una muestra de 222 estudiantes de primer semestre de la Facultad de Ciencias de la Educación de la Universidad de Pamplona. De igual forma, los resultados interpretados evidenciaron una brecha en la nivelación de competencias genéricas, específicamente, en comprensión lectora, pensamiento crítico, reflexión y capacidad de análisis. A manera de conclusión, se reconoce que, la lectura crítica no solo es un requisito indispensable para el éxito académico, sino también un componente esencial en la formación de ciudadanos críticos y comprometidos con la sostenibilidad social y ambiental, lo que demanda la implementación de estrategias pedagógicas innovadoras que integren lectura, escritura y pensamiento crítico en la educación superior.

Palabras clave: Educación sostenible, Lectura crítica, Educación superior, Educación de calidad, objetivo de desarrollo sostenible (ODS)

1. Introducción

Addressing educational quality in Colombia is a significant and persistent process in training citizens for sustainable, intelligent societies with environmental and social awareness. However, in terms of the educational research framework, Medina et al. (2020) emphasized that Saber Pro tests demonstrate the complexity of evaluating academic quality using standardized instruments, thus constituting useful tools for reflection and progressive improvement. Subsequently, Sandoval et al. (2022) emphasized a path toward Education 4.0, pointing out that technologies such as the Internet of Things and the relationship between critical reading and critical thinking in digital scenarios, while Vergara et al

(2022) argued that visual and graphic resources contribute to significant improvements in textual interpretation for fifth-grade children. Similarly, although Caicedo et al (2023) worked on two skills, textual production and critical reading, their outstanding result is the constant effort to address reading in young people as a daily habit.

More recently, García et al. (2025) analyzed critical reading as a pedagogical tool at the University of Pamplona, finding advances in English and textual analysis, but weaknesses in written communication, which coincides with the report by the Colombian University Observatory (2025) that ranked the

institution 155th nationally with an average of 141.1 in Saber Pro, pointing to the need to strengthen curricular strategies. Finally, Isidro Delgado et al. (2025) developed a research experience at the Cúcuta campus to strengthen oral and written skills in graduates of Humanities and Spanish Language, achieving progress in academic writing, argumentation, and participation in seedbeds.

Ensuring universal access to reading therefore becomes a condition for equity and inclusion, strengthening human capital and, in particular, critical thinking skills. Libraries play a decisive role here: the José Rafael Faría Bermúdez Library at the University of Pamplona exemplifies how an open learning center can promote critical reading. Its institutional portal hosts repositories of books and indexed journals that foster a culture of research and support the SDGs by disseminating academic and artistic products for undergraduate and graduate students. In addition, the University of Pamplona's publishing house offers open-access publications that enrich disciplinary and interdisciplinary training, strengthening

social cohesion at the regional, national, and international levels (see Figures 1 and 2).

Figure 1. Open access books published by the University of Pamplona publishing house.



Source: University of Pamplona—Office of the Vice President for Research

Figure 2. Scientific and indexed journals



Source: University of Pamplona—Office of the Vice President for Research

Figures 1 and 2 show QR codes that provide direct access to scientific and indexed journals and the University of Pamplona's publishing imprint. These publications, managed by the Office of the Vice President for Research, promote the dissemination of academic knowledge and the strengthening of research culture. In this regard, these initiatives orchestrated by the University of

Pamplona contribute to the fulfillment of SDG 4: Quality Education, and SDG 11: Sustainable Cities and Communities, which aims to build a citizenry with more sustainable and resilient qualities.

That is why university education faces challenges that require innovative approaches and interdisciplinary strategies, as also pointed out by Cantillo et al. (2024).

In university education, sustainability in the academic training of different programs must be a social, environmental, and economic commitment and responsibility. Specifically, incorporating these principles contributes to the development of critical thinking in future professionals, thus preparing them to face the challenges of today's world.

2. Theoretical Framework

When discussing education, authors have recognized the goals and achievements that have stood out in some projections for the future in a volatile society. Vega (2005) critically examined the foundations of the International Decade of Education for Sustainable Development Plan, identifying

opportunities and concerns about its viability and highlighting the urgency of an evaluative approach.

Other experts such as Pérez and Sánchez (2017) applied and developed an educational guide with specific learning objectives for each SDG, emphasizing the importance of integrating knowledge, skills, and values into education.

In the same vein, Martínez (2018) examined the evolution of environmental and sustainability education, discovering the transition from conservationist paradigms to complex pedagogical approaches that promote critical thinking. Another significant contribution was made by Rodríguez and López (2021), who found in Spanish educational research a tendency to accept the SDGs as an indisputable paradigm, warning of a lack of critical vision and proposing to rethink the SDGs as a tool.

Although López (2023) pointed out that SDG 4 can have and apply diverse methodologies, the need to strengthen the foundations for future research must always be sought.

Subsequently, González and Márquez (2024) conducted a systematic review of compulsory secondary education, which

found a thematic bias and a predominance of incipient curriculum proposals. This raised alarm bells, as there is a need to emphasize the urgency of sustained practices that promote critical citizenship. Curricular processes are not enough; spaces and environments must be created to promote writing and reading, as these are aligned with creativity. Hernández and Rodríguez (2025) mentioned that it is pertinent to incorporate one hour of critical reading per week into the curriculum, an action that can strengthen literacy skills.

Currently, in a field of law that is hermeneutic and interpretive in nature, critical reading of legal texts presents greater difficulty. Morales (2025) pointed out that this problem is more pronounced in the critical reading of such texts and stressed the importance of promoting meaningful reading practices that allow for a deep, analytical, and reflective understanding of knowledge, both general and disciplinary, within the university educational process.

Similarly, Weston (1998) considered critical reading to be an essential process in university, as it challenges students' beliefs and gives them the ability to

argue, defend their ideas, and develop responsible and reasoned thinking. In the discipline of law, Carbonell (2012) emphasized that students in this field must grapple with complex texts such as laws, jurisprudence, and doctrine, whose critical understanding is fundamental to grasping key concepts and constructing personal criteria about legal reality.

In other words, critical reading is an active and reflective process. Durán (2024) identified it as the essential skill for understanding, analyzing, and evaluating texts. Londoño (2025) highlighted it as the construction of meaning and critical analysis in various academic and extracurricular contexts. Brito (2020) also pointed to it as the action of making multiple interpretations of the same text.

Similarly, Riascos and Valverde (2018) address the challenges of teaching critical reading in secondary education, emphasizing the need to strengthen both critical thinking and language skills. Meanwhile, García et al. (2021) observed it as a broad view of critical reading in social practice, based on content analysis, interviews, and review of educational texts, showing that it encourages

reflective thinking and is key to the construction of knowledge. Complementarily, Ortiz and Castillo (2021), using a longitudinal methodology with secondary school teachers, demonstrated that critical reading strategies were effectively incorporated into pedagogical practice, highlighting the relevance of transdisciplinarity in teacher training and the need to continue exploring its adaptation to diverse educational and cultural contexts.

Baki's model (2025) is not limited to theory; it offers an operational framework for designing classroom experiences that synergistically articulate the three competencies, thereby enhancing the reflective capacity of future teachers. Furthermore, the application of structural equations gives the study an unusual methodological contribution in the field, on the one hand strengthening the validity of its conclusions and on the other expanding the theoretical corpus of critical education.

The triangular model proposed by Baki (2025) places critical listening at the apex of the cognitive process: as the first skill that mediates between auditory information and deep understanding, it

acts as an engine that drives both critical reading and critical thinking. Hence the following hypotheses: the first, H_1 , recognizes that critical listening significantly predicts critical thinking: if students are able to rigorously analyze and evaluate what they hear, they have the argumentative basis for reasoning, decision-making, and problem-solving.

Hypothesis H_2 reinforces this centrality by proposing that critical listening also predicts critical reading; this implies that the ability to deal with complex oral discourse transfers to the decoding and evaluation of written texts, explaining why those who listen critically tend to read more deeply. Finally, hypothesis H_3 examines the expected bidirectional influence between critical reading and critical thinking: those who interpret and question texts with competence should, at the same time, enhance their abstract reasoning.

3. Method

The research was conducted using a qualitative approach with a phased action research method, in accordance with Quintana and Hermida (2024), who state that qualitative research is a social practice aimed at understanding reality

and generating scientific knowledge through empirical data collection. In the initial stage, a comprehensive academic strengthening plan for generic skills was formulated, aligned with SDG 4, aimed at first-semester students in the Faculty of Education Sciences at the University of Pamplona. To this end, an instrument was designed and validated in Google Forms, which was applied in five bachelor's degree programs. The results showed a gap in the leveling of generic skills such as reading comprehension, critical thinking, reflection, and analytical skills, confirming the relevance of critical reading as an initial phase for identifying strengths and weaknesses in academic and professional training.

4. Results

According to the analysis carried out on a population of 222 students, the following elements were evident (see Table 1)

Table 1. Analysis of the instrument in Google Forms based on critical reading

Aspect evaluated	Frequency (%)	Number (students)	Academic involvement
Difficulties in understanding and analyzing texts	24,3 %	54	Significant weakness in reading comprehension, which affects academic

			performance.
Competence in interpreting and analyzing written information	56,3 %	125	Strength in analyzing information, key to critical thinking.
Proficiency in writing and text production	36,5 %	81	Intermediate level in academic writing, needs improvement.

Elaboración propia

This interpretation mentions that: difficulties in understanding and analyzing texts, with 24.3% of students reporting problems interpreting texts, which can affect their academic performance and ability to apply critical thinking.

Other aspects to be assessed were that, in terms of skills in interpreting and analyzing written information, 56.3% of respondents recognized themselves as competent in interpreting and analyzing written information, which represents a strength in their training process and in the consolidation of generic skills.

Regarding written text production, 36.5% reported proficiency in writing and text

production, which complements critical reading by allowing them to express their analysis and reflection in writing.

The findings of this study corroborate the existing literature on the challenges and difficulties in the development of critical thinking and highlight the need to rethink the pedagogical strategies used at all levels of education. As evidenced in instrument 1, when relating a question focused on learning difficulties in the competencies of

Comprehension and analysis of text: they responded that this presents a high degree of difficulty, with 222 students, or 54% of them, indicating that this is one of the most complex and difficult skills for understanding and interpreting text. Consequently, Gutiérrez et al. (2024) recognize that, in the field of education, it is pertinent to make adjustments to both the different emerging pedagogical models and current trends in university learning processes.

Reading is considered to have a dual purpose: to benefit students' academic performance and to contribute to the formation of citizens committed to sustainable development, in line with Vinuesa et al (2024), who points out that

the act of understanding a complex text is a focused skill that enables the development of critical thinking. This reinforces the idea that education should go beyond the transmission of information and instead foster spaces for reflection, participation, and the resolution of social and environmental problems in the community.

Initially, it is important to formulate and consider meaningful and coherent pedagogical strategies for training trends that involve techniques and methods for developing critical reading skills.

5. Conclusions

Based on the results, it was analyzed that there are difficulties and strengths in the interpretation and analysis of written information, since it influences the full development of critical thinking. Although differentiated and sustained pedagogical strategies need to be implemented, classroom commitments are also required to begin addressing and developing this skill through practical processes.

Focusing on critical reading, this skill, if it affects the ability to understand, reflect, and produce knowledge, is not only a

requirement for academic success but also an essential component for the formation of citizens committed to social and environmental sustainability. Thus, the research results reaffirm the need to integrate innovative pedagogical practices that link reading, writing, and critical thinking in higher education.

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