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The CRediT Taxonomy includes 14 roles that can be used to determine the specific actions performed by researchers in the process, structuring, and presentation of research results.

Distribution of participation roles through which an author can receive recognition in the publication (CRediT Taxonomy)*

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En el contexto de la investigación y las publicaciones científicas, la Taxonomía Credit (CRediT, siglas de *Contributor Roles Taxonomy*) es un sistema estandarizado para clasificar y reconocer las contribuciones específicas de los autores y colaboradores en los procesos de investigación y en la elaboración de artículos científicos. Este sistema tiene como objetivo promover la transparencia, la equidad y el reconocimiento adecuado de los roles desempeñados por cada uno de los colaboradores en la producción científica.



Contribuciones

El autor y sus colaboradores deben explicar las contribuciones que efectuaron en el proceso de la investigación y en los resultados alcanzados considerando la normativa expuesta en la Taxonomía CRediT.

**La Taxonomía CRediT, incluye 14 roles,
que se puede utilizar para determinar las acciones
específicas que desempeñan los investigadores
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de los resultados de la investigación.**

Distribución de los roles de participación mediante la que un autor puede tener el reconocimiento en la publicación (Taxonomía CRediT)*

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criterio	Descripción	Identificación
9. Software	Programación, desarrollo de <i>software</i> ; diseño de programas informáticos; implementación del código informático y algoritmos de soporte; pruebas de componentes de código existentes.	https://credit.niso.org/contributor-roles/software/ ID: f89c5233-01b0-4778-93e9-cc7d107aa2c8
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SOΦΦIA

PHILOSOPHY IN THE EDUCATION
OF PRINCIPLES AND VALUES
LA FILOSOFÍA EN LA EDUCACIÓN
DE PRINCIPIOS Y VALORES

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EDITORIAL

We are pleased to present issue 40 of the Collection, which focuses on the theme of “Philosophy in the education of principles and values.”

In recent decades, the axiological debate on ethical training in education has become increasingly relevant due to social, cultural, and technological transformations that are redefining the way individuals construct meaning, coexist, and act in the contemporary world. In this sense:

Education in values becomes the driving and regulating principle of the educational practice necessary to achieve the personal and social transformation of individuals. The axiological nature of education determines the type of individual and society we wish to have (Aguilar Gordón, 2024, p. 142).

The philosophy of education, especially in its axiological aspect, has emphasized that the teaching of values cannot be reduced to the transmission of norms, but rather it requires reflective, dialogical, and critical processes aimed at the development of moral virtues, ethical deliberation, and the responsible construction of freedom, as proposed by Cortina (2017) and Nussbaum (2021), among others.

Philosophy, as a rational exercise in understanding good, justice, coexistence, and human dignity, is a fundamental axis for values in education, as it allows for the analysis of the anthropological and ontological foundations that underpin ethical action (Savater, 2018; Camps, 2020).

In the field of education, this approach is linked to contemporary trends such as discourse ethics, civic ethics, democratic education, and peace education, which seek to train citizens to think critically, coexist peacefully, and participate in social life with moral responsibility (Habermas, 2015; Pagès & Santisteban, 2019; UNESCO, 2023).

Thus, lines of research such as the didactics of ethics, educational axiology, ethical dilemmas in professions and digital technologies (ICT), and the formation of virtues play a decisive role in shaping an education oriented toward full human development.

The overall objective guiding the reflections in this volume is to analyze the role of philosophy in the education of principles and values,



identifying its axiological foundation, its contributions to the formation of moral virtues, and its current relevance for coexistence, democratic participation, and the critical construction of ethical meaning in educational contexts.

It is important to emphasize that, although education in values is recognized as an essential component of integral development, there is still a gap between the curricular formulation of ethical principles and their actual experience in educational environments, hindering the consolidation of virtues, coherent ethical practices, and deliberative capacities in students. This problem worsens by the influence of polarizing social discourses, the overexposure of children and young people to technology, the loss of moral authority figures, and the insufficient philosophical training of teachers, who forget that “values in education are characterized by instilling ethical, moral, and social principles in students... that it leads to the comprehensive formation of the human being” (Aguilar Gordón, 2024, p. 142).



The central theme of this publication is pivotal because it highlights the fact that philosophy allows values to be grounded and clarified from a critical and rational perspective. Values in education require distinguishing between social habits, imposed norms, and universalizable ethical principles. Philosophy provides conceptual frameworks for understanding justice, freedom, dignity, and the common good, avoiding dogmatic or merely instrumental views (Cortina, 2017). This theoretical basis strengthens the subject’s ability to deliberate, argue, and act autonomously and responsibly.

Furthermore, it is important to consider that axiological training strengthens democratic coexistence and citizenship. Political and moral philosophy emphasizes that values are not only taught but also practiced through dialogue, recognition of others, and nonviolent conflict resolution (Nussbaum, 2021; Habermas, 2015). In increasingly diverse societies, promoting justice, solidarity, cooperation, and professional responsibility is essential to sustaining inclusive and democratic educational communities.

Additionally, the theme of this issue is clearly relevant today, as new ethical dilemmas require deep philosophical reflection. Artificial intelligence (AI), the use of personal data, digital disinformation, and the impact of social media generate unprecedented dilemmas that cannot be addressed without solid principles of truth, responsibility, and respect (Camps, 2020).

Likewise, global crises and social tensions demand ethical education for coexistence. Political polarization, the loss of interpersonal trust, and intercultural conflicts highlight the need to strengthen public ethics

based on dialogue, democratic values, and the recognition of human dignity (Pagès & Santisteban, 2019).

In recent times, there has been a growing demand for professional ethics in all disciplines. Society demands professionals capable of acting with integrity, justice, and social responsibility, an important aspect in which “the educator’s action functions as an external determinant of the student’s behavior” (Tourrián López, 2024, p. 50), a space in which education plays an essential role, insofar as through the cultural area it develops “the values derived from the character and meaning inherent in the concept of ‘education’ to generate in students skills, habits, attitudes, knowledge, and competencies that enable them to decide and carry out their personal life project” (p. 53).

This links directly to areas such as the teaching of professional ethics, the search for truth, and axiology applied to working life. For their part, contemporary philosophical trends contribute new pedagogical perspectives. From the ethics of care to critical thinking and the intercultural approach, philosophy broadens the pedagogical horizons of values education, promoting a more humane, reflective, and conscious education.

This publication contains ten articles organized into two sections: one on the central theme and another on miscellaneous topics.

First section

The academic journey begins with the work “Contribution of Ethics Education in Values to Eliminate Hate Speech,” written by Javier Gracia Calandín, from Valencia, Spain. The author analyzes the role of ethical education in values as a fundamental tool to combat the increase in hate speech, especially on social media. He criticizes the technocratic tendency to solve ethical problems through technological innovations, ignoring the centrality of intrinsic values in human action. Through a hermeneutic methodology, the author shows that the philosophy of education oriented towards axiological development allows us to understand that instrumental values can only guide action adequately if they are based on intrinsic values. The most significant contribution lies in redefining ethical education as a practice of realizing values (not as simple theoretical learning) that links freedom of expression with moral responsibility. This approach offers a philosophical framework for addressing the moral disconnect that fuels hate speech and promotes an active ethic capable of strengthening coexistence and human dignity.

The article “Digital Ghosts, Moral Algorithms, and the Challenge of Teaching Ethics in the Posthuman Age,” written by Amitabh Vikram Dwivedi of India, offers a critical analysis of how digital technologies (including AI, algorithmic systems, and metrics-based platforms) are transforming the moral behavior of students and teachers in educational contexts. It introduces the concept of “digital ghosts” to explain the traces of authorship and responsibility that persist (or are diluted) in AI-mediated works, highlighting how current educational models promote a form of posthuman responsibility marked by the erosion of accountability. Through empirical examples (such as algorithmic citation inflation and the use of large language models-LLMs for theses), the author shows that in educational institutions, ethics is diluted in the interstices of a technologically integrated system. His central contribution is to warn that, by increasingly relying on digital infrastructures, education runs the risk of losing its place in academic integrity, thus requiring a rethinking of the moral responsibility of educational institutions in the technological age.



The manuscript “Towards a Didactics of the Concept of Ethics Using the Methodological Resource Video,” developed by Hernán Andrés Morales Paredes and Luis Rodrigo Camacho Verdugo, from Chile, proposes a didactic innovation for teaching ethics in initial teacher training through the pedagogical use of the films *The Chorus* and *The Ron Clark Story*. Based on Brousseau’s theory of didactic situations, the authors design a methodology that encourages critical reflection and dialogue, linking ethical theory with pedagogical action. The use of video proves to be an effective mediator for understanding the relationship between ethics and teaching practice, generating meaningful learning and humanizing university teaching. Its main contribution is the transformation of traditional expository teaching towards an experiential and participatory approach.

The article “Challenges to the Education for Peace, Galtung, and Violence in Digital Social Networks,” by Karen González Fernández (Mexico), Tatiana Lozano Ortega (United Kingdom), and Omar Solis Ramos (Mexico), categorizes violence in digital social networks by applying Johan Galtung’s triangle of violence theory and UNESCO’s recommendations for education for peace. The authors show how violence—direct, structural, and cultural—is amplified in digital environments, affecting social and educational dynamics. Their central contribution is the construction of a conceptual framework that links violence theory and digital practices, proposing an educational basis for developing prevention and peace education strategies in highly technologized contemporary contexts.

For its part, “Secondary School Student’s Perceptions of Sincere Friendship on the Internet,” presented by Jesús Plaza de la Hoz and Zaida Espinosa Zárata, from Spain, examines how secondary school adolescents perceive sincere friendship in digital environments and the role of ICT in the development of social virtues. Through mixed analyses (AtlasTi and SPSS), a paradox emerges: although students consider themselves sincere and believe that social networks strengthen friendships, they perceive less sincerity in other users and doubt the quality of relationships facilitated by ICT. The work demonstrates that an explicit focus on virtues improves digital coexistence and can guide digital citizenship education programs based on virtue ethics.

Second section

The research “Critical Thinking Skills Motivated by the Study of Hume’s Problem and Confirmation Paradoxes,” by Rafael Félix Mora Ramirez of Peru, shows that the study of Hume’s problem of induction and confirmation paradoxes (Hempel and Goodman) enhances specific critical thinking skills in students. Based on a philosophical and logical analysis, it identifies 22 skills developed when addressing these epistemological issues. Its most significant contribution is to demonstrate that paradoxes—traditionally seen as abstract theoretical exercises—are an effective teaching resource for strengthening analytical, interpretive, and argumentative skills in philosophy education.

The article “The Pedagogy of Textual Genres and Curricular Scaffolding as a Didactic Mediation for the Comprehension of Philosophical Texts,” by Hernando Enrique Hurtado Ballestas, Nayibe del Rosario Rosado Mendinueta, and Andrés Fernando Forero Gómez, from Colombia, presents a pedagogical proposal based on textual genre pedagogy (TGP) and Bruner’s curricular scaffolding to facilitate the comprehension of philosophical texts in secondary school students. By working with Plato’s *Allegory of the Cave* in a vulnerable context, it demonstrates that this methodology significantly improves literal and inferential comprehension by allowing students to identify discursive genres and semantic structures. The central contribution is to offer a replicable model of didactic mediation that democratizes access to complex philosophical texts, overcoming practices of mechanical memorization.

In the article “Thomas Mann’s *The Magic Mountain* and its Contribution to Civic-Ethical Education,” created by Amada Cesibel Ochoa



Pineda and Cayetano José Aranda Torres from Spain, the authors reflect on civic-ethical education in current educational contexts, using frameworks of European nihilism and the philosophy of health. They identify elements in Mann's novel that promote Platonic *apagōgē*, self-care, civic courage, and responsibility in the face of war. Their main contribution is the integration of literature, ethics, and health philosophy to propose a civic education that fosters autonomy, freedom, and responsibility, demonstrating the relevance of literary narrative as a formative tool.

The study "Towards an Understanding of Mathematical Imaginaries in Contemporary Secondary Education," conducted by María José Parada Carreño, Antonio José Bravo Valero, and Juan Diego Hernández Albarracín of Colombia, analyzes the mathematical imaginaries of secondary school students and their impact on learning, identifying how beliefs, perceptions, and social practices shape young people's relationship with mathematics. Through interviews and grounded theory, the research reveals a dual imaginary: one positive, associated with usefulness, critical thinking, and empowerment, and another negative, linked to anxiety and pressure. The key contribution is to show how these imaginaries influence mathematical attitude and performance, providing evidence for designing more flexible, sensitive, and student-well-being-oriented pedagogical strategies.

The editorial proposal for this issue concludes with the article "Environmental Education for Strengthening Ecological Awareness, Sustainable Development, Prosperity, and Human Well-Being," written by Luong Thi Hoai Thanh and Nguyen Viet Thanh from Vietnam. The paper emphasizes that environmental education is a strategic pillar for addressing the ecological challenges affecting Vietnam, especially climate change, pollution, and ecosystem degradation. Its main contribution is to demonstrate that strengthening ecological awareness through educational processes (both formal and informal) is essential for promoting sustainable development, prosperity, and human well-being. The authors argue that integrating environmental protection into policy-making, community action, citizen participation, and international cooperation can increase the country's resilience, improve biodiversity conservation, and ensure an environmentally responsible future. In addition, they highlight the role of digital transformation, legal reform, and strategic planning as key elements in promoting sustainable practices in economic and socio-cultural sectors. The article provides a comprehensive vision in which environmental education becomes a mechanism for citizen empowerment and an indispensable tool for achieving the goals of the 2030 Agenda.



Taken together, the articles that make up issue 40 of the Collection constitute an invitation to rethink, from the perspective of the philosophy of education, the ethical challenges of our time. Each manuscript offers critical and innovative perspectives on moral education, democratic co-existence, the responsible use of ICT, the construction of citizenship, and the development of fundamental intellectual skills. Readers will find in its pages a plurality of approaches that engage in dialogue with each other, opening horizons for understanding the axiological complexity of the contemporary world and, at the same time, for assessing the relevance of philosophy as a discipline that guides human action and educational processes. This convergence of reflections not only enriches the academic debate but also proposes pedagogical paths capable of responding to emerging ethical, social, and cultural challenges.

We therefore invite researchers, teachers, students, and the entire global academic community to carefully explore each of the works presented, to allow themselves to be challenged by their arguments, and to use these readings as a starting point for further research. The philosophy of education continues to be a fertile space for understanding the meaning of values, promoting critical thinking, and guiding more humane, supportive, and responsible educational practices. We present this new edition as an incentive to continue researching, reflecting, and collectively building an education committed to human dignity, justice, peace, and the common good. May this volume inspire us to delve deeper into the ethical paths demanded by the present and to renew, through philosophical reflection, the educational horizon we aspire to build.



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Floralba del Rocío Aguilar-Gordón
Editor

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Articles / Artículos

CONTRIBUTION OF ETHICS EDUCATION IN VALUES TO ELIMINATE HATE SPEECHES

Contribución de la educación ética en valores para eliminar los discursos de odio

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Abstract

Hate speech has increased with social media and it constitutes a social scourge insofar as it fuels discrimination and violence towards some individuals because they belong to certain stigmatized groups. The aim of this paper is to analyze the extent to which a values-based philosophy of education can contribute to the elimination of hate speech. It denounces the technocratic confusion of attempting to solve ethical problems with technological innovation without addressing the underlying intrinsic values that should guide our actions. To carry out the study, hermeneutic methodology has been used insofar as it seeks to adequately understand the axiological dimension in people's actions and character building. Among the main results obtained is that the philosophy of ethical education in values allows us to recognize the need for intrinsic values as a guide for instrumental values. The main conclusion is that ethical education in values does not consist of theoretical learning of moral values but rather the ethical realization of values. Thus, in the face of the problems of moral disconnection, ethical education in values conceives freedom of expression as linked to personal responsibility.

Keywords

Hate Speech, Philosophy, Education, Ethics, Value, Responsibility.

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h-index: 15.

Resumen

Los discursos de odio han aumentado con la llegada de las redes sociales y constituyen una lacra social en la medida que alimentan la discriminación y la violencia hacia las personas por su pertenencia a determinados colectivos estigmatizados. El objetivo de este trabajo es analizar en qué medida la filosofía de la educación centrada en los valores puede contribuir a la eliminación de los discursos de odio. Se denuncia la confusión tecnocrática de pretender solucionar los problemas éticos con la innovación tecnológica sin atender al fondo de los valores intrínsecos como guía de la acción. Para llevar a cabo el estudio se ha empleado la metodología hermenéutica en la medida que se trata de comprender adecuadamente la dimensión axiológica en las acciones y en la forja del carácter de las personas. Entre los principales resultados obtenidos está que la filosofía de la educación ética en valores permite reconocer la necesidad de valores intrínsecos como guía de los valores instrumentales. La principal conclusión es que la educación ética en valores no consiste en un aprendizaje teórico de valores morales, sino en la realización ética de los valores. Así, frente a los problemas de la desconexión moral, la educación ética en valores concibe a la libertad de expresión como vinculada con la responsabilidad de las personas.

Palabras clave

Discurso de odio, filosofía, educación, ética, valor, responsabilidad.

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Introduction

In a global context marked by polarization, mistrust, and the resurgence of extremist ideologies, hate speech has become a serious threat to democratic coexistence. In recent years, with the rise of social media, its presence in society has grown, making it necessary to analyze it in order to find ways to eradicate it. This discourse is not simply controversial opinion, but rather a form of language that dehumanizes, stigmatizes, or incites violence against individuals or groups based on their origin, religion, gender, sexual orientation, immigration status, etc. It is often disguised as freedom of expression, but in reality it seeks to exclude and reinforce social hierarchies of domination.

Given the harmful repercussions of hate speech on the social context and the development of individuals and communities, it is necessary to stop and analyze it in order to gain a good understanding of its origins and why it is so prevalent with the social media. We need to move forward and explore possible ways to eradicate hate speech. Are technical advances in algorithms that detect and eliminate hate speech on social media sufficient? Does the solution lie in technical issues, or is it necessary to analyze and consider the reality of the values behind this problem? In this regard, what solutions can be offered from the philosophy of education? Can ethical education in values be an answer that contributes to eliminating hate speech? But what exactly is ethical education in values?

Because there is often confusion about what values are or should be and whether they are valid in themselves or depend on individual taste.

The aim of this paper is to shed light on whether ethical education in values can be a good ally in eliminating hate speech. It questions the technocratic confusion that attempts to solve ethical problems through technological innovation, without considering the intrinsic values that should guide human action. A hermeneutic methodology has been used to develop the study, given that its purpose is to gain an in-depth understanding of the axiological dimension present in people's actions and character formation. The section begins by emphasizing the ethical foundation of education. We then turn our attention to hate speech as social scourge, its definition, and meaning.

Hate speech as social scourge



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Before delving into the possible ethical and educational ways of addressing hate speech, it is necessary to understand precisely what it consists of and what its main characteristics are. This section will analyze the concept of hate speech, its evolution, and the different definitions proposed by international organizations and academic literature. This theoretical framework will allow us to define the nature of the phenomenon and recognize its social, political, and moral implications, which is an essential starting point for subsequently addressing its ethical and educational dimensions.

Definition and meaning of hate speech

There are various definitions of what is known as hate speech. The concept comes from the English term *hate speech*, but the Spanish translation itself is problematic.¹ However, over time it has become established as the expression that frames the reality of hate messages directed at people belonging to a series of groups that have traditionally been stigmatized (this is also how it is described in the UNESCO thesaurus) and for this reason it is the expression we will use in this article.

The European Commission against Racism and Intolerance, in its General Policy Recommendation No. 15, defines hate speech as:

The encouragement, promotion, or instigation, in any form, of hatred, humiliation, or contempt for a person or group of people, as well as harassment, discrediting, dissemination of negative stereotypes, stigmatization, or threats against such a person or group of people, and the

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justification of such manifestations on grounds of «race,» color, descent, national or ethnic origin, age, disability, language, religion or belief, sex, gender identity, sexual orientation, and other personal characteristics or conditions (ECRI, 2016, p. 3).

Cabo Isasi and García Juanatey (2017) differentiate between two trends in defining hate speech, depending on whether such hate messages directly or indirectly incite acts of discrimination or violence based on racial hatred, xenophobia, sexual orientation, or other forms of intolerance. The first of these trends is very closely linked to what is known and already classified in the legal code as «hate crimes.» However, the concept of hate speech is often applied more broadly, extending also to expressions that promote prejudice or intolerance, considering that such expressions indirectly contribute to creating a climate of hostility that may eventually lead to discriminatory acts or violent attacks (Gagliardone *et al.* 2015).

Among the main characteristics that define hate speech are the following:

- Victims are not attacked for their personal identity, but for belonging to a particular group with a characteristic that incites the aggressor to feel revulsion and contempt.
- Hate speech stigmatizes or denigrates a group by attributing to it acts considered harmful to society, even when it is difficult, if not impossible, to prove.
- It turns the group in question into a target of hatred on the basis of prejudiced narratives, or black legends, which seek to justify incitement to contempt and believe that society should feel toward its targets.
- Those who promote hate messages and commit hate crimes are convinced that there is structural inequality between themselves and the victim.
- These types of messages often take the form of diatribes in which no effort is made to provide coherent arguments, but rather the emphasis is on expressing contempt and encouraging others to spread the message (Hare & Weinstein, 2009; Cortina, 2017).

In most articles, hate speech on social media is associated with four types: religious, cyber racism, political insults, and misogyny (Castaño Pulgarín *et al.*, 2021). Lingiardi *et al.* (2020) also include a fifth type, referring to attacks on the LGTBIQ+ community.

In recent years, the confluence of various crises—including those related to refugees, migration flows, economic and health emergencies—together with the intensive use of the internet and social media, has highlighted the power of hate speech to promote social polarization and systematically violate the rights of certain groups, particularly those of migrant origin (Observatorio Español del Racismo y la Xenofobia, 2024). As García González (2022) points out, it is important to emphasize that the proliferation of a culture of hate and, specifically, hostile messages such as hate speech, can be understood as a concrete manifestation of «necropolitics,» in the terms developed by authors such as Judith Butler (2006, 2010) and Achille Mbembe (2011, 2018). This logic of necropolitics operates by deliberately generating feelings of animosity towards certain populations, which are represented as latent threats, in order to legitimize certain models of sociopolitical construction based on the exclusion and domination (and even subjugation) of others.

Discovering the ethical values behind technical solutions

Traditional media such as television and opinion journalism can also serve as channels for hate speech. However, it has been with the emergence of the internet, and especially with the rapid dissemination of information and greater permissiveness facilitated by social networks such as Twitter, Facebook, and YouTube, that hate speech has had an increasingly far-reaching social impact. This is mainly due to the impact that social media has had on notions of democracy and respect for human rights (Daniels, 2013; Matamoros Fernández & Farkas, 2021).

As Cabo Isasi and García Juanatey (2017) point out, online hate speech adds a number of features that make it an uncontrolled phenomenon with even greater potential for harm. First, there is communicative overabundance, where what were once private messages now occupy social media spaces, to the point of being sent in mass. Secondly, the decentralization of communication, in the sense that anyone can send a message with enormous audience potential, giving rise to what is metaphorically referred to as «viralization.» To all this must be added other characteristics such as the permanence of content, roaming between different platforms, the use of pseudonyms, anonymity, and transnationality.

The presence of ethics in digital spaces, and especially in social media, is a requirement that is being demanded by various authorities. It is true that regulation of the ethical use of social media and AI often lags behind, with misuse of these spaces occurring first and regulation coming

later to alleviate the problems caused (Poveda *et al.*, 2025). However, to the extent that social media also constitute elements of socialization, it is necessary to implement these ethical measures that preserve democracy and the values defended by human rights. After conducting an extensive systematic literature review (Gracia Calandín & Suárez Montoya, 2023), it is clear that studies on hate speech do not delve into a sufficiently detailed ethical analysis and are often reduced solely to technical issues.

The European Union Parliament has highlighted the potential benefits and dangers of artificial intelligence (AI) in relation to the repression of human rights and democracy. Ünver (2024) points out how AI can be used as a «weapon of repression» and its impact on human rights. He therefore advocates the need to establish a global standard for AI ethics and human rights to protect people from digital authoritarianism both within and beyond their borders (UNESCO, 2024). In this regard, he points to some policy recommendations as a strategic resource for possible European Parliament initiatives to develop a strategic policy to counteract algorithmic control abuses.

In light of recent studies by Lee *et al.* (2024) on racism suffered by the African American community in the United States, it is clear that the solution is not for algorithms or public authorities to silence the experiences of victims of such hate speech. Indeed, in order to implement inclusion and equity in these online spaces, the solution is not silencing, but rather the detection and recognition of such discourse taking place on social media. Therefore, implementing practices with moderated content or even «counter-narratives» can help foster more inclusive and productive conversations (Poole *et al.*, 2019). The research carried out by these authors once again highlights the urgent need to rethink content moderation guidelines and the algorithms that apply them so that they accurately reflect the values of inclusivity and equity.

Alkiviadou (2022) points out the delicate situation of simply applying AI on platforms to eliminate hate speech. Automated mechanisms may have biased data sets and be unable to detect certain nuances in language. Therefore, they should not cease to be supervised in their application to hate speech, as this could lead to violations of the right to expression and the right to non-discrimination.

For his part, Venkateshwarlu (2025) points out that in order to tackle hate speech, ethical concepts must be preserved in the design and application of AI-based systems, and policies that promote responsible innovation without undermining fundamental democratic values must be defended. Indeed, the way to overcome the scourge of hate speech is



by creating inclusive digital spaces and defending rights and freedoms for socially responsible development, inclusiveness, and respect for individual freedoms.

In terms of philosophy and the ethics of values, technology is an instrumental value, which is not the same as «morally neutral.» It is important to remember this because recognizing technical value as a means implies that we must not lose sight of the ends for which that means will be used. And when this occurs, as in the case of technocratic society (a society in which science and technology become ideology), then technical values, which are pure means, are converted into ends, as Gracia Guillén (2011) points out:

Instrumental values are always at the service of other intrinsic values. Seeing them only as instrumental values, therefore, without their relationship to intrinsic values, is already perverse, because it deprives them of their necessary reference. By separating them from intrinsic values, we absolutize them and thus convert them into intrinsic values themselves. By proclaiming the neutrality of technology, we are elevating it, usually unconsciously, to the category of intrinsic value (p. 155).



Therefore, even taking into account the contribution of technological innovation and the latest artificial intelligence tools, it is essential not to lose sight of the foundation of ethical values. Once again, for the eradication of hate speech, including online, the key is not only or primarily to implement the most advanced technical and IT tools, but to forge a social and individual *ethos* that embodies the fundamental ethical and civic values that underpin democratic coexistence. With this in mind, we will now delve into the axiological background that frames the phenomenon of the viralization of hate in society. We will then analyze how it is possible to eradicate such hate through ethical education.

The viralization of hate in society

The viralization of hatred in society requires an understanding of the mechanisms that erode democratic coexistence and transform conflicts into polarized confrontations. This section first analyzes how the affiliation between hatred and fear acts as direct threat to the civic fabric, weakening trust and feeding exclusionary discourses. Second, it addresses the process by which individuals and groups can go from victims to perpetrators through «moral disengagement,» a dynamic that justifies aggression and

dehumanizes the other. Exploring these phenomena reveals the psychosocial roots that drive the current spread of hate.

The affiliation of hatred and fear as a threat to democratic coexistence

In the third chapter of *The Monarchy of Fear*, Martha C. Nussbaum (2019) recalls the affiliation of anger with fear. Against the backdrop of the American context, the author highlights the plethora of emotions linked to fear, as well as the consequences of such fear for democracy, fostering policies of exclusion and the rule of envy. Furthermore, as a leading specialist in the classical world, Nussbaum recalls that for the Greeks, fear and anger had pernicious consequences for democracy. Thus, going beyond what she had argued in her 2016 book, *Anger and Forgiveness*, she recognizes «the role of fear as source and accomplice of vengeful anger» (p. 94).

Explicitly, Nussbaum (2019) takes up Lucretius' idea that fear makes everything worse and produces a series of political evils, notably anger. The fear of human vulnerability, the fear of death and of being harmed, is the seed of anger. Unlike the gods, who are perfect and cannot suffer—and therefore cannot feel afflicted—human beings can be hurt, and it is this possibility that causes the gripping and irrational fear that awakens anger in them.

Although Nussbaum (2019) does not dwell on this point, fear can certainly be understood as a principle of caution and prudence, and it is reasonable that, given the vulnerable human condition and the immense power of technological advancement, people should act under a principle of caution to avoid possible damage or loss of valued goods. The best example in this regard is the «principle of responsibility» developed by Hans Jonas (1995), which has been so widely seen in applied ethics. But here we are referring to another type of fear, which is irrational and paralyzing, and which complicitly nullifies one's ability to act and allows oneself to be overcome by hatred and vengeful anger.

Fear becomes irrational and pernicious when it feeds hatred toward others. In several of his works—for example, in the field of education, *Not for Profit*—Nussbaum (2010) has studied how hatred can originate as a form of «projected disgust» toward certain groups. Disgust, in itself, is an instinctive response with evolutionary roots that serves as a form of self-protection against potentially contaminating elements such as organic waste or bodily fluids (blood, vomit, mucus, urine, among others). But it becomes a social scourge when this emotion is displaced toward specific



individuals or communities, thus generating processes of stigmatization and rejection. In such cases, certain people come to be perceived as «dirty,» impure, or contaminating, which fuels attitudes of segregation and prevents contact or integration.

Nussbaum (2019) emphasizes in the fourth chapter of *The Monarchy of Fear* that fear, being at the root of the most basic disgust, acts as a psychological reinforcement in this type of projected revulsion, jeopardizing fundamental principles such as equality and respect between individuals. These types of emotional dynamics lead to contexts of marginalization. For this reason, the author proposes excluding expressions of disgust from public discourse when they are directed at people for reasons related to their ethnicity, religion, gender identity, sexual orientation, among other factors.

More specifically, in the educational environment—even from an early age—it is possible to identify behaviors that anticipate this logic of exclusion and stigmatization. A clear example of disgust projected in the school context is the game known as «the lice hunter,» where a child is symbolically linked to something considered repulsive, such as parasites. This practice creates a direct association between the child and a characteristic perceived as unpleasant or undesirable, thus promoting their social isolation (Nussbaum, 2010).

In the face of this lethal alliance of hatred and fear for democratic coexistence, we propose the courage of ethical education in values. An ethical education in values that shapes people's character and allows them to inhabit a world in which it is possible to develop their own humanity, while fostering a fruitful synergy between philosophy, ethics, and education that promotes attitudes of respect, justice, and recognition towards others.

From victims to perpetrators through «moral disengagement»

As Carolin Emcke reminds us in her work *Against Hate* (2017), hate is a highly contagious virus, so that those who seek to confront it with more hate have already fallen into its tentacles, being engulfed by it and paradoxically becoming what they denounce. Hate leads to a dynamic of destruction, where, far from feeding a sense of justice and the purpose of building a better world, it ends up blaming certain individuals and groups for the ills that face societies. Rather than being an obstacle that is easy to overcome, hate has a toxic magnetism that ultimately blinds people's critical, reflective, and deliberative potential, fueling attitudes of exclusion and stigmatization.

Hate breeds more hate, and as some studies show, a large proportion of young people who have been the targets of hate speech are the ones who later become perpetrators of hate speech against others. In this regard, Patchin and Hinduja (2019) explore how family background and parenting practices influence the likelihood of a teenager engaging in hate speech, whether online or in real life.

Hate spreads very quickly through social media. As Reichelman *et al.* (2020) show, there is a transfer of aggression and an escalation in violent behavior in digital environments, which is then also transferred outside of social media. Thus, as Kowalski *et al.* (2013) point out, adolescents who suffered, participated in, or observed *cyberbullying* were the ones who most reproduced these behaviors inside and outside social media, as hate speech has a negative effect on adolescents' self-esteem and mental health.

Likewise, according to longitudinal studies reviewed by Lozano *et al.* (2020), adolescents experience situations of bullying in which they are first cyber victims and then become cyberbullies. One distinction between bullying and cyberbullying is that in the latter case, an adolescent is more likely to be both a victim and a perpetrator at the same time. The longitudinal study by Falla *et al.* (2020) shows how adolescents who were victims of school bullying were more likely to develop bullying behaviors in the future.

In view of all this, Gómez Tabares and Correa Duque (2022) emphasize that the transition from victim to perpetrator takes place through a cognitive restructuring that legitimizes these behaviors as an acceptable alternative or normative trait in peer relationships, leading to future intimidation or bullying behaviors. To explain this transition from victim to perpetrator, they draw on Bandura's (1999, 2016) theory of «moral disengagement,» which is worth pausing to consider. Moral disengagement refers to the sociocognitive strategies that people use to restructure their understanding of an immoral, violent, or cruel action, thereby avoiding moral self-censorship and isolating the negative feelings associated with acts that violate a society's moral standards (Thornberg *et al.*, 2015; Gómez & Durán, 2017) violent, or cruel action and thus avoid moral self-censorship, isolating the negative feelings associated with acts that violate a society's moral standards (Thornberg *et al.*, 2015; Gómez & Durán, 2021).

For their part, as Bakioğlu and Çapan (2019) point out, it is worth considering the empathic tendency as an element that can mediate and moderate the effects of moral disengagement on cyberbullying. This highlights that both bullying and cyberbullying behaviors are influenced



by moral, emotional, and relational factors. Thus, in light of the research by Oberman (2010) and Gini *et al.* (2014), in contrast to bullies and victims—who show a moral disengagement that tends to justify abusive behavior—children who assume the role of defenders showed high moral sensitivity and empathic reactivity toward their peers, aspects that have been associated with prosocial behavior and prosocial moral reasoning.

Preventing and mediating to avoid hate speech

Returning to Emcke's approach (2017), the root of the problem lies in the fact that those who hate have lost the ability to truly question and to discern properly. They feel so sure of themselves that they are incapable of questioning their own ideas. Entrenched in stereotypes fueled by their projected disgust toward certain people, they have lost all capacity for criticism and self-criticism.

As aggressive and violent behavior, hate speech is classified in schools as acts of bullying and cyberbullying. In light of research on bullying and cyberbullying (Thornberg *et al.*, 2015; Wang *et al.*, 2021; Bakioğlu & Çapan, 2019), the relevance of emotional and personality factors in shaping moral agency and understanding different behaviors and roles is key. Anger associated with moral disengagement is a predictor of acts of bullying. In contrast, a high degree of empathy, understood more as «ethical compassion» (Singer & Klimecki, 2014; Orts García, 2023 and 2025), is a protective factor that moderates the association between moral disengagement, bullying, and cyberbullying.

Elsewhere (Gracia Calandín & Suárez Montoya, 2023; Gracia Calandín, 2024), we have proposed various ways to eradicate so-called hate speech. Among them, the cultivation of ethical compassion and critical thinking play key role. Of course, technology can be an ally in the effort to eliminate hate speech insofar as it allows for the detection of certain behaviors classified as such. But digital media, as seen, far from facilitating and simplifying the problem, have led to an increase in the number of cases of cyberbullying and hate speech on social media in recent years. Nor is it enough to think that responsibility lies solely with politicians, leaving citizens in the background.

Therefore, the question of the keys to eradicating hate speech is far from being exhausted, and below we propose to analyze and question whether ethical education in values can be a fundamental ally in the effort to eliminate it. Beyond whether it refers to religious, aesthetic,



logical, epistemological, or moral issues, to the extent that values are rooted in the character or *ethos* of individuals and peoples, values are always ethical and therefore have implications for social and civic coexistence. This is what primarily concerns us, and it is at this point that ethics and education are intrinsically connected (Tamarit López, 2025). Each seeks and needs the other in order to fulfill its own purpose. On the one hand, ethics, insofar as it refers to the malleable dimension of people, i.e., their *ethos* or character, directly alludes to education. On the other hand, education, insofar as it is not instruction or indoctrination, or even mere teaching, assumes that it is not dealing with programmed machines but with educable people (therefore, with a malleable way of being or character). At this point, to speak of unethical education would be to fall into a gross oxymoron (Gracia Calandín, 2025).



By introducing a third element, that of value, alongside education and ethics, the proposal is to adopt a specific approach, that of axiology, which allows us to philosophically ground the intrinsic connection between ethics and education. This is in order to explore the extent to which the question of value can be crucial to developing a well-founded type of education that contributes to the eradication of hate speech. The philosophy of values education fulfills this function because it allows us to highlight the value of ethical education and to provide a foundation for the goal of eliminating hate speech and rooting fundamental values for coexistence in people's *ethos*, such as equal human dignity, respect for different identities, responsibility for one's own actions, and solidarity with the most disadvantaged.

The courage to care about building values

Julián Marías (2000) recalled that the main meaning of the term «value» is «courage» and that it is more courageous than valuable. Without a minimum of courage, without a minimum of bravery, all other values collapse. Indeed, it takes a good dose of courage to address the issue of values. This is because they are such elusive and unstable qualities that they have been relegated throughout the history of thought, escaping philosophical analysis, as José Ortega y Gasset (2007) pointed out in his substantial «Discourse for the Royal Academy of Moral and Political Sciences» in 1918.

Indeed, throughout Antiquity and Modernity, philosophy has focused on being, good, and duty. It was not until well into the 19th century with Lotze and Brentano, and especially at the beginning of the 20th century with philosophers such as Max Scheler, Nicolai Hartman, and

José Ortega y Gasset, that value took its rightful place in the history of philosophy (Marías, 2000; Gracia Guillén, 2011).

But concern for value is central to the task at hand, because value is inherent in the human capacity for estimation, and the world we inhabit is a world steeped in values. Valuing values is not only an act of courage, but also an eminently vital issue in confronting social scourges such as hate speech, which seeks to exploit fear and paralyzes our capacity for estimation. Thus, silent fear spreads its tentacles to paralyze the creative sources of human beings and ultimately diminish their capacity to desire, prefer, and estimate. With these sources blinded, the subject becomes passive and reactive, blurring into the masses, losing the contours of their own character and identity, feeding stereotypes, and nullifying individuality. As seen, this is precisely one of the characteristics of hate speech: individual identity is eliminated and the prejudice of a group that is denigrated is projected onto the person.

The courage to build values seeks to break and overcome this spiral of hatred and fear that nullifies personality and paralyzes human growth. In the face of this, the value of the values that shape people's character is vindicated. Without the construction of these values, it would be impossible to undertake the full development of personality, which is the ultimate goal of education (Gracia Calandín, 2020). In the face of fear and hatred, which stifle the creative forces of human beings and lead them to barbaric destruction, education in values is based on the assumption that human beings are builders of a world of values, where the key is no longer to survive in terms of passive adaptation (*adaptation to the environment*), but rather to seek above all to «build a valuable life» (*adaptation of the environment to our life project*) (Gracia Calandín, 2020).

For this well-established philosophy of value, it is not enough to refer to being, nor to establish imperatives, nor even to allude to goods. More fundamentally, the key lies in discovering the humanly «vital» aspect of value, i.e., recognizing the essence of life that nourishes estimation as a constitutive of the human way of life and which is reflected in the everyday language we use to communicate with each other.

All this is an argument in favor of a type of estimative or «cordial» rationality, as José Ortega y Gasset calls it, in unequivocal contrast to Kantian pure rationality.



*Returning to the fundamental philosophical question
of value as the ethical foundation of education*

It is essential that educational philosophy reflect on the values and principles that guide educational activity, allowing for a deeper understanding of the values that all educators, especially educational institutions, should promote. Thus, axiology refers to reflection and analysis of the values and value judgments that constitute and shape the human person. And while it is true that axiology can encompass various branches such as aesthetics or the philosophy of religion, what is unavoidable is the constitutive dimension of axiology for ethics. Because it is ethics that seeks to analyze the values and norms that shape the character of individuals and peoples. In this sense, ethics must be understood as the foundation of education (Gracia Calandín, 2025).

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The philosophy of education is a branch of knowledge that, among other things, offers a critical and reasoned understanding of the foundations of education. Various branches have proposed different types of these foundations: philosophical, worldview, epistemological, logical, sociological, or axiological, which, in one way or another, guide educational work and «consolidate the ethical bases that must be within the educational process with which the horizon of the type of personal and social formation that is to be achieved is proposed» (Aguilar Gordón & Collado Ruano, 2025, 83).

In this regard, it would be a mistake to consider that it is possible to understand and explain people's behavior from an axiologically neutral point of view, as positivist approaches have attempted in various ways. Therefore, despite the positivism or positivisms in vogue that tout axiological neutrality everywhere, if we want to understand human beings properly, we must focus on the values that shape their way of being, i.e., their *ethos*. José Ortega y Gasset (2009) eloquently argues:

Every man, every people, every era is, first and foremost, a certain system of preferences, to which the rest of their being is devoted. Life is always a gamble with certain values, and that is why every life has a style—good or bad, personal or vulgar—created originally or received from the environment (Ortega y Gasset, 2009, p. 901).³

In the case of José Ortega y Gasset, the concern for value is fundamental, and his assessment as a starting point can provide clues to discovering that morality is not a performance that is added as a secondary quality to being, but is embedded in the very core of human praxis. And

perhaps the centrality of value in José Ortega y Gasset's work has not been sufficiently understood, even by some of his main interpreters, for whom estimation is merely an «occasional» issue, especially in the third stage of his work since 1924. However, in light of more recent research (Echeverría Ezponda & García Pérez, 2017; Expósito Roper, 2020 and 2021), we find that the question of value in José Ortega y Gasset (2007) occupies a central place (as it does in other great philosophers such as Max Scheler or Nicolai Hartmann) insofar as it is value that is given to us, but not as a being, nor as a good, but as something more radically original than good or even duty. In this regard, the central thesis of his famous «Discourse for the Royal Academy of Moral and Political Sciences» is that the world of value (or of action) is not and cannot be reduced to the world of being. «The consciousness of value is as general and primitive as the consciousness of objects [...] perhaps what *is* seems to us *to be* worthless, and on the other hand, what *is* not imposes itself on us as maximum value» (pp. 710-711). In doing so, he effectively takes up the Husserlian thesis expressed in 1913, in *Ideas I*, and also developed more prolifically that same year by Max Scheler in his work *Formalism in Ethics*, namely, the thesis that the world of values is given to us with the same immediacy, originality, and foundational character as the world of things, and that being and value should not be confused with each other.

The characteristic feature of the philosophy of value proposed from the phenomenological-hermeneutical approach as the foundation of ethics and education is that it seeks to overcome both ancient realism and modern subjectivism. It is here that the phenomenological-hermeneutic approach must avoid, on the one hand, the Scylla of ancient metaphysical realism and, on the other, the Charybdis of modern subjectivism and relativism. Of these two extremes, it is undoubtedly the latter that continues to wreak havoc today, leading to a diminished and deficient view of values. Faced with this and following Ortega's assessment and authors of the ethics of values who are heirs to the phenomenological-hermeneutic tradition, we will seek to overcome the subjectivist and relativist conception of values in order to rediscover the fundamental potential of value as a regulator of behavior.

*Overcoming the relativist conception of values
without falling into absolutism*

As heirs to the phenomenological-hermeneutic tradition of values, and especially to the Spanish tradition—we refer primarily to authors such

as José Ortega y Gasset (2005, 2007), Manuel García Morente, and, above all, Xavier Zubiri and Pedro Laín Entralgo— Diego Gracia Guillén (2011) affirms that the question of values is above all a «vital» question, embedded in biology. The fact is that no one can live without valuing, and we value because, as humans, we cannot help but do so. *Biologically, we are predisposed to value*, and estimation shapes the way we access reality. Valuation is not an arbitrary addition to our access to the world; it is a mental process specifically geared towards achieving the main biological objective, namely survival. By virtue of the nervous system, human beings interact with the environment, receiving not only neutral data, but also a series of emotions and estimates that shape their conception of reality. As Gracia Guillén (2010) points out:



The function of intelligence is projective; it serves to project and carry out the modification of the environment based on assessments and preferences, and that project necessarily has a moment of assessment. We project what can improve our lives, i.e., what can add value to them. Hence, assessment is a biological necessity. [...] In fact, the realization of the project has no other purpose than to add value to things. Culture is that repository of value (p. 11).

Indeed, human beings need to plan in order to fulfill themselves as people; they themselves are projects, i.e., they are propelled forward (*project*) by their aspirations and goals. The human project is shaped by emotions, but above all by intelligence, an intelligence that is embedded in the affections and therefore sentient. An intelligence that projects and allows nature to be improved to the point of transforming the natural environment into a world imbued with values. Values, therefore, are not empty intellectualizations, lacking in active and performative power, but quite the contrary, they are qualities that are constructed by realizing them, and by realizing them, human beings themselves are also realized.

The projective nature of the axiological dimension of human beings has often been criticized, detecting in it the seed of relativism.⁴ This philosophical question has very relevant implications for education, because if we accept the premise that values depend on subjective tastes and it is not possible to mediate on whether the value we attribute to something is objective⁵—but rather that they ultimately depend on the pleasure it causes in the subject— then it will be difficult, if not impossible, to find in values the foundation we seek for education.

In relation to hate speech, we can glimpse the effects and influences of the deflationary subjectivist conception of values. If values fall on

the side of subjective tastes and it is not possible to refer to anything objective that allows us to agree, then is any opinion equally valuable, even that of someone who makes derogatory judgments about others? Once again, does value lie in the liking or disliking that something produces in the subject? What if the effects of liking and disliking vary from person to person? Then, if we find someone detestable and consequently make disparaging remarks about them, can this not be denounced as something objectively wrong?

Recognizing the objectivity of values puts us on guard against subjectivism and relativism. It gives way to what should rightly be called «intrinsic values,» i.e., values that are valid regardless of whether individuals develop sufficient sensitivity to recognize them. Based on this well-established philosophical tradition, we can maintain that values are truly valid and are not purely subjective inventions. It is not an arbitrary invention, but a discovery, and in this sense it is worth remembering Antonio Machado's (1964) words: «every fool confuses value and price» (p. 264).⁶ For although we do assign a price to things, their value is intrinsic to them.

But unlike a Platonic approach, which would argue that values are absolute and have reality in themselves, the phenomenological-hermeneutic approach we defend is that values are dynamic and not static. In other words, they contain a potential that only human creativity can discover. It is by virtue of this human creativity that an incredible number of possibilities and new worlds are designed, bringing to light values that are valuable in themselves but have remained hidden for generations. It should be added that once these values are discovered, we find them indispensable because they enable us to inhabit a better, more humane world. Thus, the historical construction of values should not be confused with the relativism that prevails in modernity. Because value, although not a physical quality, is nonetheless real, i.e., it becomes reality (Gracia Guillén, 2011).

In the case of hate speech, the value of respect for the physical and moral integrity of individuals is not a social invention that could be as valid as discrimination or social denigration through defamatory messages. If this were the case, then the value would be deprived of its validity and everything would be worth the same, which is the same as saying that nothing would be worth anything in and of itself. On the contrary, if the former (respect for human dignity) is a value and its opposite (lack of respect for human dignity) is a disvalue, then we must conclude that values are not only relative or merely subjective, but that they are values because they contain a validity that transcends relativism.

The ethical problem that frequently arises is at the level of application when situations arise in which two or more values conflict with each other and it is necessary to analyze and make a decision to resolve practical issues. Thus, in order to legitimize the possibility that people can express their opinions even when they may be offensive or derogatory to some groups, the American tradition appeals to the Second Amendment of the U.S. Constitution. The preference for freedom of expression over respect for different identities is evident in a whole philosophical tradition that has advocated for the lesser evil of offending others if this preserves the principle of freedom of expression (Toscano, 2022). This differs from the European tradition, which includes the Spanish Constitution, which limits freedom of expression and restricts it when other values such as the right to honor are at stake (Valiente Martínez, 2020, 2022).

By giving freedom of expression primacy over other values, it opens up the possibility of undermining respect for different identities by violating people's right to honor or self-esteem. This leads to situations that ultimately undermine social coexistence and fuel prejudice and stigmatization of certain groups. This granting of absolute value to freedom of expression has been characteristic of a certain liberal or libertarian tradition (as some prefer to call it).

Recognition of the absolute value of every person based on the pedagogical and humanistic sense of culture

As seen, axiological relativism is modulated as a modern derivation of the subjectivist conception of value. If cultures are taken in the ethnographic sense and also considered as an absolute value, then the problem encountered is that of the instrumentalization of the person for the purposes of that culture (understood in the nineteenth-century terms of ethnicity), reducing culture to ideology (in the Marxist sense of a false consciousness of reality). Again, it is one thing to maintain that culture as the repository of human values constitutes an intrinsic good, but this should not be confused with culture (nor education, which is but one aspect of culture) constituting an absolute value.

Therefore, as I have pointed out in various places, we must recover the genitive of the pedagogical and original meaning of culture, emphasizing the *cultura animi*, which is how José Ortega y Gasset prefers to use it in various places, albeit with clear vitalist overtones. In other words, culture as the repository of values should not be absolutized to the point of becoming disconnected from the «cultivation and formation» of the



human being. The pedagogical question is again key here in order not to confuse the terms. Indeed, the approach that best illuminates this pedagogical and humanistic reality of culture is the hermeneutic one, and this can be seen in authors such as Ortega y Gasset, Gadamer, and Taylor.

The value of culture is not absolute but relative to the person. So, is there anything or anyone that can be taken as not only an intrinsic but even an absolute value? Is the human being an absolute value in such a way that nothing can override their own worth? Indeed, this idea of the human being as an absolute and not relative value is what is captured in the term «human dignity,» at least since Kant (1992), which is nothing more than the recognition of the unconditional worth of the human being. It is this absolute value of human beings that establishes an unequivocal limit so that human beings cannot be exploited. Recognizing the dignity of a person means recognizing that human person as «an end in themselves and never at the same time merely as a means,» as expressed in the well-known second formulation of the categorical or unconditional imperative (p. 65).

The discovery of human dignity is hugely relevant to the eradication of hate speech, which is the subject of this article. Recognizing and respecting the dignity of every human being, regardless of whether they belong to one group or another, is the best antidote to hate speech.

Recognizing the absolute value of human beings is a necessary complement to the ethics of values. From the perspective of the ethics of values, human beings have been characterized not only as repositories of values but also as projectors and creators of values. This capacity to discover new values, and even more so to be both the agent and the repository of those values, which transform the natural environment into a more humane world, is what gives human beings a special status compared to other beings. As indicated above, it is not a question of advocating pure reason as the foundation of this dignity, but rather of recognizing that sentient and courageous intelligence is the driving force behind all humanization of individuals and societies. In contrast to a «duty» disconnected from life projects, the ethics of values points to a duty as the realization and embodiment of these life projects imbued with values.

*The importance of reflection, internalization,
and ethical realization of values*

From the point of view of philosophical reflection, values are often separated in order to analyze them. However, the world of values is not



alien to the subject's life experience. On the contrary, it is nourished by experience itself and comes to life in the actions that agents carry out. Let us remember what has been said above about values not being something added to reality from outside, but rather a constitutive part of human experience, and it is important to emphasize that the reality of values depends on this realization. That is why when we say «add value» in terms of the constructivist approach, what we are saying is that human life consists of «realizing values»; only in this way can we speak of «moral good.» The realization of moral value is not humanly optional, but rather a human duty, even more so, the duty to become human.

Moral values are not just other values, but rather, insofar as they are the values that connect with people's character, they have a more fundamental status. Ethical value lies in the internalization or embodiment of other values, thus carrying within itself the inextricable link between theory and practice, discourse and action. Needless to say, discourse is already a form of action (communicative act) and there is no better sermon than example. This does not minimize the importance of the reflective dimension or nullify the objective content of values. What it points to is that ethical value resists empty theorizing and warns against the hypocrisy of preaching without corresponding example. In other words, moral goodness directly connects discourse about good with practice.

Scheler (2001) astutely focused on this point, characterizing moral value as a value «behind the intention» (Maliandi, 2002). The key is not in wanting to appear good to oneself and others, as the Pharisee in the parable does.⁹ Moral goodness is the very realization of all other extramoral values. To put it another way, moral values are not «preferable,» and therefore it is not morally permissible to «try» them. Phariseism consists of thinking that moral value consists in the realization of certain values (the so-called moral ones) independently of the realization of other extramoral values, which translates into separating ethics from the realization of other non-moral values. Would it be possible to realize moral values while disregarding other non-moral values (vital, aesthetic, legal, social)? The danger that Scheler himself already foresaw is that attempting to remove «good» and «bad» from the world of values, i.e., as a kind of segregation of these values from the rest, leads to a kind of pharisaism, which is very harmful to society. In Scheler's opinion (2001):

Any attempt to establish a common standard, outside the sphere of values, to define «the good and the bad,» for example, leads not only to an error of knowledge in the theoretical sense, but also to a very serious moral deception. [...] whenever, therefore, there has been talk of «the



good and the just» or «the bad and the unjust» as if they constituted an objectively definable and determinable class, it has necessarily fallen into a kind of «pharisaism,» which confuses the possible *depositories* of «good» and the characteristics common to *them* (as mere depositories) with the values themselves and with the essence of the values of which they are merely depositories (p. 59).

In light of this eloquent quote, it can be said that it is not fair those who try to be fair and say so in their hearts, but those who strive to do the right thing and put their zeal into achieving it, without creating the dichotomy of the righteous and the unrighteous. This dichotomy leads to social segregation that ultimately eliminates values, considering goodness or evil to be an attribute of a certain type of person and not of every human being as a possible repository of values.

This has important applications for this topic because, as we seen at the beginning of this article, one of the main characteristics of hate speech is that it nullifies the personal identity of victims by considering them part of a certain group. This group is given a trait that leads the aggressor to feel contempt for it. All this even though it can never be proven that this group committed the harmful act attributed to it. Those who engage in hate speech participate in the hypocrisy denounced by Scheler by dividing reality into good and bad, eliminating the intrinsic connection between moral goodness and the realization of other values.

In the face of such hypocrisy, education in ethical values must be understood rather as an ethical education in values, where people, every human being, are the repositories and realizers of values, regardless of their ethnicity, religion, age, gender, or sexual orientation.

Ethical education in values as the key to moral reconnection and confronting hate speech

Above, we referred to Albert Bandura's (1999 and 2016) theory of «moral disengagement» as an explanation of the psychological process by which individuals justify cyberhate and hate speech, and how a person can go from victim to perpetrator. Moral disengagement explains the mechanisms that people develop to engage in immoral behavior without experiencing guilt or remorse. These mechanisms, such as moral justification, diffusion of responsibility, or dehumanization, operate to deactivate moral self-regulation mechanisms, allowing people to perform actions that they would normally (if they were morally connected) consider unacceptable.

In contrast, ethical education in values focuses on shaping people's character. It is the person —as the builder of values—who is conceived as the subject of values and therefore responsible and empowered in the process of transforming reality to make it more valuable. It is not a question of projecting blame onto others or declining one's own responsibility or capacity by settling for the status quo, but rather of assuming the capacity to realize values, which is nothing more than bringing them to fruition (raising them up and making them a reality). Because discourse is empty when it seeks to confine itself to the realm of theory. But if, instead of hate speech, we nurture reflection, analysis, discernment, internalization, and finally the realization of values, then not only is the hypocrisy denounced by Scheler overcome, but human beings are recognized in their capacity to regulate their emotions and take charge of their intellectual and emotional capacity to humanize their life circumstances.

This proposal for ethical education in values bridges the gap between words and deeds, but not in the sense of inciting violence, as in the case of hate speech, but rather by recognizing the intrinsic value of every human being, considering them as an end in themselves and never at the same time as a mere means to an end (Gracia Calandín, 2020).

Ethical education in values is very closely connected to education in affections because values are not entities, nor ideas of the *cogito*, nor of pure reason. Values are embedded in the capacity to estimate, therefore, they are the correlate of the faculty of estimating and preferring. In this regard, properly educated sentient intelligence must lead to the regulation of emotions (Nussbaum, 2019). Indeed, it is a matter of the person «regulating their feelings constructively, through reasoned and ethical reflection, seeking creative alternatives for the transformation of hate speech» (París 2020, p. 153).

In the case of hate speech, it is not moralization that is pursued in education, as if it were indoctrination into a code of conduct. Education must seek reflection, analysis, and the consequent realization of values. When it comes to situations where there is a conflict of values, such as in hate speech between freedom of expression and respect for honor, ethical character education must delve philosophically into critical and self-critical thinking, questioning stereotypes and stigmatization. It is necessary to situate oneself and understand the context to exercise good discernment in order to determine where the real value lies, i.e., how to make these values a reality through the actions of individuals.



Conclusions

The aim of this paper is to analyze the extent to which a value-centered philosophy of education can contribute to the elimination of such hate speech. Hate feeds on fear, ignorance, and mistrust, so overcoming it requires creating spaces where people can listen to each other, recognize each other, and question their own certainties. Therefore, in the face of the silent fear and moral disconnection that hate speech exploits, the ethical commitment to value implies, first and foremost, the courage to value values, based on the human potential to build and shape a world of values. Thus, in the face of moral disconnection, which is not only incapable of confronting hate speech but even fuels the spiral of hatred by turning victims into perpetrators, ethical education in values constitutes a plea to empower individuals as agents and implementers of values. Fear gives way to courage, and hatred gives way to the ethical construction of a personal and social world of values.

This article has achieved its objective of analyzing the extent to which a values-centered philosophy of education can contribute to the elimination of hate speech. The ethical cultivation of values is based on a philosophy of value education in which the most fundamental element is no longer being, good, or even duty, but rather values, insofar as they are objective qualities constructed by human beings, but which are not adrift in modern subjectivism and relativism. In this main task, we have avoided both the pitfalls of absolutism of values and cultural relativism. Between the two, a third way has been defended, which is the recognition of humanly created but intrinsic value, i.e., values that are valuable in and of themselves. In this way, the link between value and validity has been restored, overcoming one of the main limitations of axiological relativism.



Notes

- 1 «Hate speech» is usually the translation of the English expression *hate speech*, but elsewhere we have already highlighted the limitations of this translation, because both the term «speech» and «hate» do not adequately reflect the reality to which this term refers (Gracia Calandín & Suárez Montoya, 2023).
- 2 José Ortega y Gasset (2007) states: «In contrast to Kant, we will argue that if there is a 'practical reason', it will not be an intellectual reason but a [...] *raison du coeur*, as Pascal vaguely supposed. Scheler already alludes to this in his *Formalismus der Ethik*. And, in fact, what I understand by *Estimativa* would be a system of cordial 'reason'» (p. 709). Later, in another note, Ortega accuses Kant of the mistake of not having been able to distinguish between «values» and «things that are valuable,» reducing happiness to an ideal of the imagination of a purely empirical nature,

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which is nothing more than a drift toward modern subjectivism, which also affects the concept of value.

- 3 It is very significant that this text belongs to Ortega y Gasset's essay on Velázquez, which dates from 1947. This shows that the importance of values in Ortega y Gasset's work is not limited to 1927—as some interpreters of his work, such as Lasaga Medina (2006), have argued—but rather, as more recent research by Noé Expósito Ropero (2020, 2021) has defended.
- 4 The author considers this to be a possible derivation from Nietzsche's *umwertung der werte* (we do not discuss here whether this interpretation of Nietzsche's thesis is adequate or not). There is no doubt that human meaning is constitutive of reality, but the thesis of the inversion or transvaluation of values leaves us on the brink of relativism. Perhaps the only possible foothold as a fundamental criterion would be *life*, but not understood in the Darwinian sense, rather life as *wille zur macht*. Whether there are sufficient guarantees to prevent this from leading to «abuse of power»—according to the law of the strongest—is another matter that would deserve careful analysis; an issue that, as can be assumed, has clear implications for the topic of hate speech that concerns us here.
- 5 This is Ortega y Gasset's (2005) well-known criticism of Meinong and Ehrenfels' subjectivism. Meinong would have argued that values are pleasant things and Ehrenfels that values are desirable things. Both approaches are criticized for being burdened with modern subjectivism since «values are something objective and not subjective.»
- 6 It is worth remembering that this famous proverb by the poet Antonio Machado was originally published in 1917, in the revised edition of *Campos de Castilla*. In it, the poet includes a series of «Proverbs and Songs» dedicated to Ortega y Gasset, among which the above quote stands out. These poems reflect the intellectual dialogue between the two (poetry and philosophy) on topics such as truth, value, time, and authenticity.
- 7 As is well known, the neologism is due to Cicero, who, in search of a definition of philosophy, came up with this expression of *cultura animi*. The metaphor of the human mind as a field to be «cultivated» has great expressive power for pedagogy and points to a kind of humanism, insofar as it places the human being at the center rather than culture. «Just as a field, however fertile it may be, cannot be fruitful without cultivation, so too the mind without education and theoretical training. But the cultivation of the mind [*cultura animi*] is philosophy: it extracts vices at their root and prepares the mind to receive the seeds, entrusting it, so to speak, with the sowing of those things which, once developed, will produce abundant fruit» (*Tusculan Disputations*, II, 13). I have dwelled on this passage before (Gracia Calandín, 2020, 75 ff.).
- 8 «Moral evil» is distinct from physical evil. Good and evil in the moral sense are always related to human projects, and more specifically to the moment of realization or implementation of those projects. Ethics has to do with the decisions we make, and therefore with what we do and do not do. Our obligation is always the same: to 'add value' to things; therefore, to 'realize' values. When this does not happen, when we are able to do so but do not, the concept of 'moral evil' arises. Moral good, on the other hand, is the intelligent, emotionally projected, and voluntarily desired increase in the value of things» (Gracia Guillén, 2011).
- 9 Recall the famous parable of the Pharisee and the tax collector in chapter 18 of the Gospel of Luke, from which Scheler also takes it.



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DIGITAL GHOSTS, MORAL ALGORITHMS, AND THE CHALLENGE OF TEACHING ETHICS IN THE POSTHUMAN AGE

Fantasmas digitales, algoritmos morales y el desafío de enseñar ética en la era poshumana

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Abstract

The article tracks how AI sorting tools and profit-seeking metrics quietly rewrite the ethical rulebook of the university. Introducing the concept of “digital ghosts” to describe the artefactual traces of authorship, intent, and authenticity produced by technology-mediated work, it contends that current educational models encourage a posthuman form of responsibility characterized by weakened accountability. Through empirical vignettes—including algorithm-driven citation inflation, dissertations constructed with large language models, and a July 2025 incident in which institutional affiliations were openly sold on LinkedIn—the article documents an academy where ethical judgment is displaced by platform logic and metrics, and where growing dependence on dashboards increases integrity risks for students and faculty alike. It explains how algorithmic infrastructures reshape authorship and evaluation, examines the consequences across academic roles, and proposes a program to restore accountability that pairs provenance and audit-ready practices with pedagogy integrating technical literacy and ethical reasoning. The article concludes that academic integrity must be deliberately redesigned for digitally mediated scholarship rather than assumed to remain intact.

Keywords

Digital Ethics, Academic Integrity, Posthuman Education, Moral Algorithms, Surveillance capitalism, Virtue Ethics.

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Resumen

Este artículo analiza las implicaciones éticas derivadas de las tecnologías digitales (TIC) y las infraestructuras algorítmicas en la educación contemporánea, especialmente la inteligencia artificial (IA), los sistemas de clasificación basados en datos y los incentivos orientados al beneficio económico. Examina cómo estos factores transforman la conducta moral de estudiantes y docentes. A partir del concepto de “fantasmas digitales”, entendido como las huellas de autoría, intención y autenticidad que persisten en obras mediadas o generadas por IA, se sostiene que los modelos educativos actuales propician una forma de responsabilidad poshumana marcada por la erosión de la rendición de cuentas tradicional. Mediante viñetas empíricas, se exploran ejemplos de decadencia ética, como la inflación algorítmica de citas, las tesis redactadas con modelos lingüísticos de gran escala y un escándalo ocurrido en julio de 2025: la compraventa de filiaciones institucionales a través de LinkedIn. Estos casos evidencian el rumbo preocupante que sigue la educación, donde la ética se diluye en los intersticios de un sistema tecnológicamente integrado. Cuanto más dependen las instituciones de plataformas y métricas digitales, mayor es el riesgo para la integridad y la responsabilidad académica. En este contexto, urge reconsiderar el significado práctico de la integridad y redefinir los marcos de responsabilidad ante las transformaciones tecnológicas que reconfiguran la idea misma de lo humano.

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Palabras clave

Ética digital, integridad académica, educación poshumana, algoritmos morales, capitalismo de vigilancia, ética de la virtud.

Introduction

Recent scholarships have called for greater attention to the algorithmic infrastructures that inform and produce scholarship in a contemporary, digitally mediated academy (Recio Sastre, 2025). Artificial intelligence (AI), data-driven ranking systems, and profit-motiveness have overwhelmed universities post-AI, transforming them from mere venues for faculty and student interactions. This change raises crucial questions about the responsibility to protect everyone who is affected, students, faculty and institutions. This troubling rise of ‘digital ghosts’ undercuts the conventional understanding of authorship and pays us to re-think what we do and do not steward, are accountable for, and have faith in.

This article explores the ethical aspects surrounding these digital technologies in modern education. Through studying how changes in these factors affect ethical conduct in both students and faculty, the study aims to show how present-day educational paradigms have played a major role in engendering an attenuated mode of normative responsibility characterized by that old post-human chestnut, moral accountability.

Although educational institutions are becoming paperless, the core of academic integrity seems to be losing its texture. All of this raises important questions regarding the veracity of knowledge generation in an environment increasingly characterized by algorithmic publications and

sequestering those human spirits involved in the production of knowledge. At the root of this dilemma is the need to understand how a posthuman information system challenges ethical practices and shifts the burden of accountability from human stakeholders.

The study proposes that a proliferation of digital ghosts—products of AIs and algometrics—causes epistemic irresponsibility in academia. Such a change in scale calls for us to rethink integrity and accountability, to rematerialize ethical obligation according to the worlds put into being by our digital technologies.

As our educational practices become more and more intertwined with digital innovations, it is critical that academics, policymakers, and society at large engage in discussions about what the ethical implications of this transformation are. This leads to reflections on the discussions about academic integrity and ethical routines, ultimately revealing what we could expect when digital algorithms increasingly shape educational activities as part of algorithmic governmentality.

Considering the recent scandals involving institutional affiliations, digital technologies, and academic fraud, this topic is particularly relevant. With the backdrop of a rapidly changing pedagogical environment, knowledge of this topic has become essential, largely because existing ethical frameworks need to change to accommodate new realities facilitated by technologies. As more stakeholders are committed to visibility and quantitative metrics instead of real engagement, addressing this topic is crucial for education and the future of scholarship.

A qualitative research approach has been applied in this paper, importing empirical vignettes to represent these forms of decline that become emergent due to the algorithmic influences and AI-generated outputs. The analysis is embedded within a comprehensive literature review and uses case studies techniques together with applicable theoretical frameworks. Approaches range from a detailed revisiting of major corruption scandals to algorithmic and computational assemblages, and from considerations of neoliberal transformations in authorship and citation practices to both an analysis of the moral economy within which such revelations arise and reflection on their aftermath. Data collection consists of a review of the literature and reports related to Digital Technology (ICTS) in education combined with the integration of opinions being expressed in current discussions about digital ethics and other matters.

To provide a conceptual framework that presents definitions along with an exploration into these phenomena. It then presents case studies and real-life examples illustrating ethical degradation in contemporary



academia. Subsequent sections expand on conversation and discourse analysis, examining their effects and their relationship to academic honesty and moral responsibility. Finally, the conclusion offers insights and recommendations for recalibrating accountability in posthuman educational contexts, along with suggestions for future research.

The world of digital ghosts

This section defines “digital ghosts” and locates their ontological stakes in contemporary scholarship, then shows how AI systems, metric platforms, and citation engines erode epistemic responsibility. The text isolates four entrenched modes of academic ghosting—large language models (LLM) generated manuscripts, recursive citation rings, traded authorship slots, and rentable institutional affiliations—showing how each flips the prestige economy from veracity to visibility. It then tracks the moral fallout once human deliberation is ceded to opaque evaluation algorithms: responsibility evaporates into the circuitry, and “good” becomes whatever the dashboard can count. A concise analysis of the Pune “affiliation-rental” scandal—conducted in full public view—illustrates the mechanics of this erosion. The section ends by flagging two forthcoming graphics: a risk-assessment matrix of algorithmic harms and a timeline that reconstructs the Pune incident step-by-step.

The present-day modern universities are haunted by the so-called *digital ghosts*—phantom agents whose presence is manifested in automatically generated prose, algorithmically generated reading lists, and self-replicating citation graphs, silently infusing scholarly networks with nonhuman actors that escape any responsible human authorship. But these echoes of innovation are not innocent; as Pestre (2021) notes with insight, they mark a worrying “erosion of epistemic responsibility”, the fundamental duty to be held accountable for what we say, observe, measure, and interpret. With each occasion when a language model rolls out a literature review in seconds, or when metrics services fabricate an h-index in a matter of hours, human judgment is ceded to black-box computational doppelgängers (Pasquale, 2015; Zuboff, 2019). In Hans (2015) so-called “transparency society”, the chilling irony is that as outputs have become more visible, the moral agency behind them has vanished from sight.

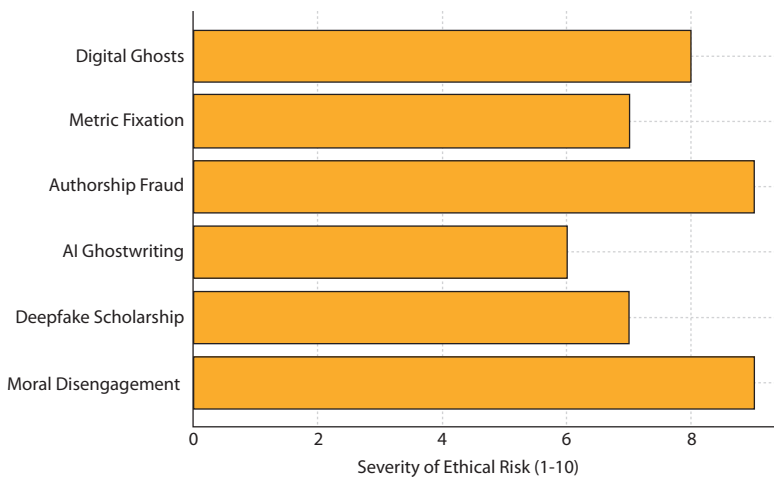
The issue is exacerbated by the fact that digital ghosts are not limited to simple plagiarism, which is the easiest target for detection software.



They signal a deeper, ontological shift in what scholarship is and how it enters the world of academia, a transition Hayles (1999) foresaw while discussing the “posthuman”. Knowledge objects now circulate detached from embodied labor and situated accountability, assuming at least four recurrent forms. For example:

- Complete manuscripts written by LLM are adapted to nominal human authors, which is called automation rhetoric.
- Citation algorithms trigger recursive feedback loops that magnify the apparent authority of works that few have actually read (Fong & Wilhite, 2017).
- black markets that resemble less a collegial collaboration and more a commerce (Hosseini *et al.*, 2018).
- Meanwhile, institutional ties became profitable assets that were sold to improve global ranking metrics, reversing Merton’s (1973) norms of the common good and disinterested scrutiny.

Figure 1
Classification of the severity of ethical risks
in the digital age on a scale of 1 to 10



Taken together, these expressions help indicate the form of a scholarly ecosystem in which visibility and calculability, and even taxation, outweigh the kind of accountability that used to be embodied in the person occupying the desk down the hall and in which the spectral weight of digital ghosts increasingly writes the story of academic life. Collectively,

these manifestations point to a posthuman academic economy whose principal currency is not truth but transmissible appearance. Scholarship is rewarded not for the depth of inquiry it embodies but for its algorithmic resonance, its capacity to register as a quantifiable event in ranking dashboards, citation indices, and social media analytics. In such an environment, the *digital ghost* is not an anomaly to be exorcised; it is the structural norm that reveals how profoundly academic value has been recoded in the age of moral algorithms.

Posthuman Decision-Making and Moral Erosion

Braidotti's (2013) notion of posthuman decision-making captures a historical juncture in which the locus of agency migrates from embodied subjects to machinic assemblages—software agents, predictive models, and data architectures that follow their own internally consistent, but socially uninterpretable, logics. Within higher education, this migration is concretized in an interlocking infrastructure of algorithmic ranking dashboards, auto-updating citation indices, plagiarism-detection *suites*, grant-scoring algorithms, and recommendation engines that advise search committees whom to hire and libraries what to buy. The cumulative effect is precisely what Pasquale (2015) describes as the “black-box society”: consequential judgments about scholarly merit, career advancement, and institutional prestige are rendered by opaque computational procedures whose assumptions, weightings, and training data are seldom disclosed or debated.

This reconfiguration of agency changes the moral terrain of the academy. Arendt's (1963) portrait of the “banality of evil” cautions that moral catastrophes frequently result, not from diabolical intent, but from the routine failure to exercise reflective judgment—thoughtlessness grounded in procedural routine. Algorithmic governance intensifies this hazard by providing a ready-made *alibi*: responsibility can be diffused into code, outsourced to datasets, or attributed to “the system”. Mittelsadt *et al.* (2016) note that most machine-learning pipelines are designed for optimization and prediction, not for normative deliberation; they lack any intrinsic capacity to weigh justice, fairness, or academic integrity. When promotion committees defer to auto-generated h-index cutoffs that update every night, or journal editors reflexively trust in citation-impact forecasts, they make decisions with as yet unexamined moral implications, ceding ethical agency to statistical correlation. The consequence of this evolution has been a pseudo-voluntaristic iteration of Arendtian thoughtlessness: people are pushing the buttons, but all moral inquiry



which ought to direct their behavior is tacitly extradited to algorithms all but unencipherable.

The Pune Incident: A Case Study of Academic Ghosting

On 7 July 2025, a routine LinkedIn scroll revealed an extraordinary post from a mid-career economics professor at a private management institute in Pune. The message was bluntly transactional: “40,000 for sole or first-author papers; 25,000 for middle-author slots—just add our institute’s name. DM for details.” In a matter of hours, the offer had accrued thousands of views, dozens of “likes,” and a comment thread that read like an ethnography of contemporary scholarly culture before the author hastily deleted the evidence. Screenshots, however, had already begun circulating on Twitter, ResearchGate, and departmental WhatsApp groups, ensuring the post’s afterlife as a case study in what might be called the *financialization of affiliation*—treating institutional branding as a strip-mall add-on to any manuscript nearing submission.

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Figure 2
Censored post on LinkedIn referring to questionable research ethics



What made the incident especially revealing was not the rogue solicitation itself—similar deals have long circulated quietly through conference corridors—but the breadth and tone of the reactions it elicited. Marketing scholar observed with weary pragmatism, “The educa-

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tion industry has new business verticals. Many assistant professors have quit teaching to do this full-time” (LinkedIn comment, 9 July 2025). Others expressed open disgust or dark humor, yet an undercurrent of resignation ran through the thread: this is simply how the metrics game is now played. The spectrum of responses maps neatly onto Bandura’s (2016) taxonomy of moral disengagement. Some commenters employed advantageous comparison (“At least he’s not fabricating data”), others displaced responsibility (“NIRF rankings¹ leave us no choice”), and still others minimized consequences (“A harmless branding exercise”). The most sweeping abdication came from Prof. M. R. Saeed: “Who cares for ethics? Do they exist in politics, in corporate life, or—worst of all—in academia? Faculties are forced to do this or perish!” (LinkedIn comment, 9 July 2025).

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In a single afternoon the Pune post rendered visible an entire shadow economy of authorship swapping and affiliation rental that usually operates off-platform, crystallizing the broader crisis of integrity now confronting digital academia. It showed how quickly moral norms can be reframed as market opportunities once scholarly reputation is mediated by algorithmic rankings and citation dashboards, and how effortlessly individual actors rationalize participation in those markets when systemic pressures make ethical deviation appear not only normal but necessary.

The Crisis of Truth in Academia

This section maps how metric fixation recasts academic value through rankings and dashboards (NIRF, Shanghai, REF, SJR, etc), reading them with Foucault’s disciplinary power to show how quantitative visibility displaces ethical purpose. It then tracks the monetization of authorship—paper mills, citation cartels, and byline trading—through the LinkedIn solicitation as a concrete hinge between incentive structures and everyday practice. Then, brief global scan follows (Clarivate delistings, Hindawi retractions, Chinese paper-mill pipelines, Brazilian citation rings) to illustrate that the integrity problem is systemic rather than local. The section culminates in an account of surveillance capitalism in academia, where impact metrics, downloads, and alt-metrics become extractive resources, alienating intellectual labor from inquiry and normalizing data manipulation over discovery.

Institutional Pressures in Rankings and Metrics

Over the last decade higher education has been recast as what Muller (2018) names a regime of “metric fixation,” an environment in which the worth of a person, program, or institution is inferred almost exclusively from numerically tractable surrogates—impact factors, h-indices, placement percentages, and citation tallies—while contextual judgment and ethical purpose recede from view. Nowhere is this logic more visible than in India’s NIRF, whose annual scorecards determine government funding, student demand, and media prestige. By rewarding sheer publication volume and citation counts, the framework fabricates what one business-school faculty member, A.S. Chandel, calls “a game played just to climb the NIRF ladder and pull in admissions” (LinkedIn comment, 9 July 2025). Similar scoreboards—from the Shanghai Ranking to the UK’s REF—propagate the same incentives globally, encouraging scholars to slice studies into multiple “least publishable units,” court citation cartels, or purchase authorship outright.

A useful lens is Foucault’s (1977) genealogy of disciplinary power which sees rankings as panoptic technologies that watch, compare and normalize academic bodies through metrics. Under their eye, researchers become what Foucault referred to as “docile bodies”: self-regulating agents who match behavior to indicator floors and ceilings, transforming their intellectual labor into outputs amenable to spreadsheets rather than principled inquiry. “Institutions and disciplines wail the ranking’s obsession with the number of publications to the detriment of the very teaching-learning mission they report to” (LinkedIn comment, 9 Jul 2025). The effect is a drift from the epistemic curiosity to the structural necessity of metric congruence, which prioritizes quantitative visibility over intellectual honesty and cultural depth.

Academic Moonlighting and Monetization of Authorship

The now-infamous LinkedIn solicitation exposes a larger market logic in which academic authorship itself functions like a task on an “intellectual Uber,” a gig economy of scholarship where visibility can be bought, sold, or rented by the click. Far from an isolated lapse, the post belongs to a mature ecosystem of monetized shortcuts that operates through several well-defined channels:

- *Paper Mills.* These unscrupulous entities (i.e., tutoring services, editing agencies, and infamous paper mills) produce plug-and-



play manuscripts with falsified data sets and tailored figures—and even pre-printed journal titles in exchange for payment. For instance, a recent analysis of publishers’ databases uncovered thousands of these articles, many featuring nearly identical peer reviews and cut-and-paste graphs, thereby raising doubts about the authenticity of academic publishing (Else & Van Noorden, 2021).

- *Citation Cartels*. In the dark underbelly of academia, researchers gather in Slack groups, private Telegram channels, and exclusive guest editorships in high-impact special issues to build “citation rings.” They use underground networks to help each other recycle articles, the recycling in the form of a reference list that bumps up impact metrics while not providing meaningful scholarship engagement (Fong & Wilhite, 2017). These activities pervert the actual worth of academic labor and erode the very foundations of rigorous scholarship.
- *Authorship Trading*. This is an incredibly dangerous trend, but it appears that authorships can be traded similar to political favors or securitizations of “visibility swaps.” Hosseini *et al.* (2018) reveal rate cards, where the price of bylines is established: first author credits are high, acknowledgments are lower, and a ghostwriting service token is generated for one ghostwritten article. Authorship has emerged as a commodity—one that devalues research by introducing broad for-profit interests into the heart of the academic intellectual consortium.

The practical ingenuity of this marketplace is captured by quantitative-methods lecturer Pratik B., who noted during the LinkedIn thread that scholars are “hijacking Google Scholar suggestions from namesakes to pad their citation count, while others buy citations at 1,000 apiece like it’s an online sale” (personal communication, 9 July 2025). From a Marxian viewpoint, these practices exemplify the alienation of intellectual labor: the scholarly object remains separated from its producer and returns into circulation as a fungible exchange value, evaluable by rankings, impact factors, and tuition money. The writer’s trade, long associated with inquiry and evidence, is fit to be traded in data markets.

Global Examples of Citation Cartels and Paper Mills

As mentioned, the integrity problem is not geographically contained; it is structurally global. In 2023, Clarivate Analytics² removed 82 titles from



the Web of Science after forensic analysts uncovered “anomalous citation patterns”—a polite euphemism for networks of articles whose references were engineered to pump impact-factor scores (Oransky, 2023). Similar irregularities keep surfacing in the case files of the Committee on Publication Ethics (COPE), whose incident reports read like a catalogue of industrial-scale deception:

- *Chinese paper-mill pipelines.* Text mining by independent sleuths traced more than 400 fabricated articles to commercial ghostwriting shops in China. All were published between 2019 and 2021 in Elsevier journals, complete with bogus e-mail reviewers and copy-pasted microscopy images (Schneider, 2021).
- *Hindawi mass retractions.* In 2023 the open-access publisher Hindawi pulled more than 300 papers after auditors found template peer-review reports, recycled figures, and author lists that changed between acceptance and print—a pattern the company itself labelled “systematic manipulation of the publication process” (Retraction Watch, 2023).
- *Brazilian citation rings.* As early as 2013, bibliometric mapping exposed clusters of Brazilian researchers who funneled hundreds of reciprocal references through special issues and conference proceedings to vault their journals up national ranking tables (Van Noorden, 2013).

Taken together, these events reveal an academic variant of what Zuboff (2019) calls “surveillance capitalism”. Metrics generated from citations, downloads, and alt-metric signals serve as the primary resources for value extraction, while the knowledge these metrics are meant to reflect fades into the background. Journals pursue impact factors to secure APC;³ revenue streams; universities harvest citation dashboards to climb global ranking lists; individual scholars treat authorship slots as currency. In this economic circuitry, data manipulation—not discovery—becomes the chief mode of production, further alienating intellectual labor from its epistemic purpose and entrenching a marketplace where attention and credibility can be algorithmically manufactured.

Moral Delegation to Machines

This section charts the reconfiguration of authorship and responsibility in scholarly practice under generative AI. Beginning with a fo-

cused treatment of “AI as Author,” it interrogates how LLM produce citation-dense texts that confound traditional markers of originality, contribution, and proprietorship. It proceeds to document emergent vectors of academic fraud—deepfakes, synthetic corpora, and fabricated identities—and argues that these phenomena precipitate a verification crisis, reallocating labor from knowledge production toward authentication. Drawing on Bruno Latour’s (2005) “distributed agency,” the analysis then disaggregates responsibility among students, platform developers, institutions, and evaluative infrastructures, represented via a network map of an AI-generated manuscript. The section ends by foregrounding the normative stakes: when moral reasoning is folded into optimization routines, rightness collapses into score-keeping. It then sketches counter-measures—mandatory provenance trails and tamper-evident authorship verification—that could reinstate accountability inside the algorithmic loop.

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AI as Author in ChatGPT

The arrival of LLM—ChatGPT, Claude, Gemini, etc.,—and their rapidly proliferating cousins—has redrawn the cartography of scholarly authorship. Having learned from terabytes of digital text, these systems can churn out a slick citation-laden prose that mimics the writing style, argumentative approaches, and disciplinary conventions of peer-reviewed literature. One prompt might produce an abstract (with namedropping from Derrida on Latour), or a literature review laced with imagined DOIs, or a results section adorned with fabricated tables. But this feat of technology comes at an epistemic cost: It destabilizes categories of originality and contribution on which academic credit has traditionally relied (Lund *et al.*, 2023).

The resulting condition might be termed *authorship ambiguity*. Whereas plagiarism once involved a clear human act of appropriation, we now face outputs whose provenance is algorithmic, collective, and probabilistic. Did the doctoral candidate merely polish the AI draft, or did the model supply the conceptual core of the argument? Who— if anyone— owns sentences statistically assembled from millions of copyrighted sources? Early empirical work suggests the practice is no longer marginal: Several Scientific, Technical and Medical (STM)⁴ publishers report that between 15% and 20% of new submissions exhibit textual fingerprints consistent with LLM: unusual lexical bursts, compression artifacts in references, or stylistic homogenization across multi-author manuscripts.

These developments sharpen the distinction proposed by Floridi *et al.* (2018) between “the ethics of AI” (how we, as moral agents, design

and deploy such systems) and “AI ethics” (the misguided expectation that machines can shoulder normative reasoning for us). When ChatGPT drafts a discussion section, the ethical responsibility to verify sources, check logical coherence, and declare contributions still belongs to the human researcher; delegating those tasks to the model confuses computational fluency with moral agency. Yet the speed and fluency of LLMs invite precisely that abdication, tempting scholars to treat ethical deliberation as another routine function to be outsourced. Unless academic fields develop clear standards about provenance, recommendations of disclosure thresholds, and pedagogical recommendations, the line between intellectual hand-craftedness and automated imitation will erode further, creating a marketplace for ideas where accountability itself might be just as manufactured as the prose on the page.

Deepfakes and Citation Hijacking



Text-based ghostwriting is only the opening act. A new suite of generative tools now makes it possible to counterfeit virtually every element of the research record, transforming fraud from a labor-intensive craft into a point-and-click service. The most salient developments include:

- *Deepfake conference talks and lectures.* With little more than a head-and-shoulders photograph and a voice sample scraped from a webinar, commercial “avatar studios” can synthesize high-definition videos in which a scholar appears to outline experimental protocols, walk through PowerPoint slides, and field audience questions—all for a paper that never existed. Lip-sync, eye-tracking, and ambient-noise engines make the footage difficult to distinguish from a genuine keynote, allowing fraudulent presenters to impress hiring committees or secure speaking-fee honoraria without leaving their desks.
- *Algorithmic data factories.* Specialized GANs (generative adversarial networks) and diffusion models can now produce datasets—MRI scans, microscopy images, genomic sequences, or social-survey spreadsheets—that satisfy expected statistical distributions and pass most plausibility checks. A researcher can prompt, “Generate a CSV⁵ of 10,000 respondents showing a significant positive correlation between mindfulness training and GPA ($p < .01$),” and receive perfectly formatted numbers that will survive routine peer review unless raw-data audits or code replication are required.

- *Synthetic scholarly identities.* Profile-generation services stitch together AI portraits, fabricated co-author networks, and curated publication lists populated with either real DOIs (cleverly faked ones) that redirect to paywalled dead ends. These phantoms register ORCID iDs, open Google Scholar accounts, and apply for editorial-board seats, thereby injecting nonexistent experts into the citation economy. Once embedded, they can be called upon to boost the metrics of paying customers, or to generate positive peer-review reports on-demand.

Combined, these capabilities are the simulacrum of Baudrillard (1994): a copy encompassed with no relationship to an original that circulates as though it were real, replacing reality with a hyperreality that only refers to itself. In the academic sphere, the result is an epistemic verification crisis. Traditional gatekeeping—peer review, conference Q&A, institutional affiliation checks—was designed for malicious actors who might embellish, not for algorithms that can fabricate entire worlds at scale. When a compelling deepfake lecture, a statistically impeccable dataset, and a scholar with an impressive h-index can all be conjured *ex nihilo*, the ontological basis of scholarship—its anchoring in observable procedures, accountable individuals, and reproducible evidence—begins to dissolve. The central scholarly task thus shifts from producing knowledge to authenticating reality, a reversal that threatens to divert intellectual energy away from discovery and into an endless game of forensic catch-up.

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WHO IS RESPONSIBLE? THE PROBLEM OF DISTRIBUTED AGENCY

Handing off ever-larger portions of reading, synthesizing, and writing to generative algorithms reconfigures the moral map of scholarship in precisely the way Latour (2005) foresaw when he spoke of “distributed agency.” The final act—uploading a term paper to the course portal—now rests on a sociotechnical relay in which multiple actors leave fingerprints:

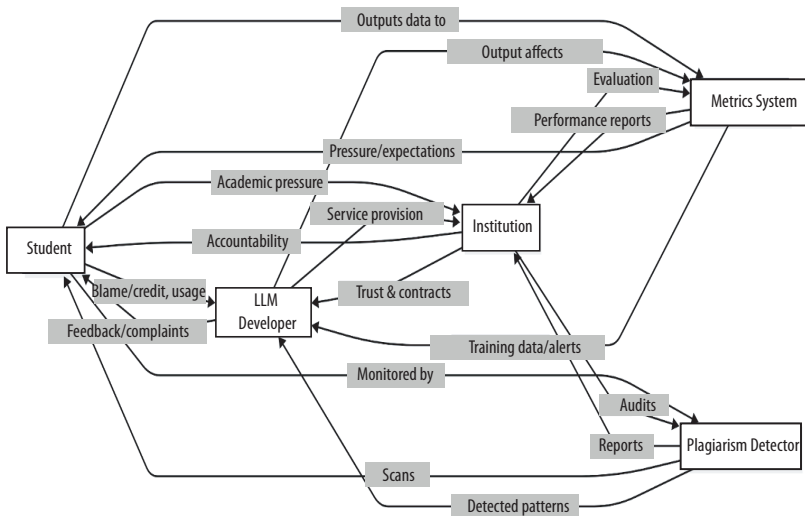
- The student who frames the prompt and decides to hit “submit”.
- The engineering team whose transformer architecture translates that prompt into prose.
- The venture-capital investors who press for frictionless user growth.
- The university that provides no clear guidance beyond plagiarism boilerplate.

- The global ranking systems that reward throughput and citation visibility over reflective learning.

When the essay is later flagged as “AI-assisted,” culpability scatters across this network. Is the student a cheat or merely an opportunistic user of a campus-licensed tool? Are developers liable for releasing a product that can outwrite undergraduates? Should the lecturer have required oral defenses to verify authorship? No single node can credibly lay full claim to the outcome, demonstrating the Latourian observation (Latour, 2005) that action belongs to an *assemblage* and never to a singular subject.

This dispersion creates the moral atmosphere which Bauman (2001) would call “liquid modernity.” As it enters the brittle ecosystem of update cycles, policy memos, and dashboard metrics, norms that once seemed solid—authorship, originality, academic integrity—melt into fluid streams. Anticipating the outcome perfectly, behavioral ecologist M. Sharma captured its essence in a much-commented revulsion on LinkedIn: “All is fair in love, war and academic ratings” (personal communication, 9 July 2025). In such liquidity, responsibility behaves like mercury on a tabletop—every time an institution tries to pin it down, it breaks into smaller beads that roll elsewhere, leaving no single actor readily accountable.

Figure 3
Map of agency distributed in an AI-generated job



The Axiological Gap and Vanishing Values in Digital Labor

This section situates a crisis of authenticity in academic production and shows how digital tools erode values across three layers: epistemic authenticity (where metric incentives displace inquiry), authentic relations (where co-authorship and collaboration become transactional), and institutional authenticity (where rankings rewire the university's mission). It then tracks the decline of responsibility and justice: drawing on Levinas to frame responsibility to the Other, and on Fraser to show how “abnormal justice” emerges when algorithmic management masks power and reproduces inequality. Finally, it analyzes moral disengagement as a systemic feature of the digitized academy, using Bandura's mechanisms (moral justification, euphemistic labeling, advantageous comparison, displacement, minimization), a comparison table to align classical and digital-academic forms, and Zuboff's instrumental power to explain how platform design and real-time metrics normalize these violations.



Authenticity in Academic Production

The rapid digitization of scholarly life has thrust universities into what Taylor (1991) would describe as a full-blown “crisis of the ethics of authenticity.” Taylor's concept hinges on the ideal that individuals and communities should act in ways that express their true convictions and values. Digital tools that can fabricate prose, inflate metrics, or monetize prestige now make that ideal difficult to realize—or even to recognize. The result is a multi-layered erosion of authenticity that affects every plane of academic practice:

- *Epistemic authenticity. The integrity of knowledge-making itself:*
 - a. Ideal: Research is pursued for the intrinsic purpose of understanding the world, guided by curiosity, rigor, and methodological transparency.
 - b. Erosion: Bibliometric dashboards, tenure clocks, and algorithmic recommendation systems reward volume as well as sheer number of citations. They are teaching a generation of scholars how to port one study into multiple “papers,” or cite friends in citation rings, or outsource the literature review to a generic large language model. The craving for metrics

- displaces the craving for the truth; the paper is turned into an instrument of strategy rather than evidence of inquiry.
- *Authentic relations. The nature of academic relations:*
 - a. Ideal: Partnership is based on shared intellectual respect and common cause, with credit given where the real contribution has been made.
 - b. Erosion: Co-authorship now functions more and more like a transaction—the adding of authors for their branding, their deletion to avoid a conflict of interest, and finally, expressing fair reciprocity by inclusion in a co-authored writing orgy to accrue citations. Communication is limited to template emails and automatically generated project boards, where one once found the deep, dialogic engagement that used to characterize mentorship and joint discovery.
 - *Institutional authenticity. The mission and self-conception of the university:*
 - a. Ideal: Universities act as guardians of critical thought and public enlightenment, structuring incentives around teaching excellence, open debate, and socially relevant research.
 - b. Erosion: Those rankings convert that mission into a numbers game in which grant income, high-impact publications, and social-media reach dominate. Administrative offices establish “ranking task forces,” funnel funds toward quick-win research areas, and pressure faculty to publish in any venue that boosts institutional metrics, even if the scholarship is tangential to local needs or student learning.

Across these three layers the same dynamic repeats: digital affordances that promise efficiency and reach simultaneously undermine the conditions for sincere expression and honest contribution. What looks like productivity on a spreadsheet often masks intellectual shortcuts; what looks like collaboration on a CV can conceal transactional alliances; what looks like institutional success in a ranking table may signal a drift away from education in the public interest. In Taylor’s terms (Taylor, 1991), the academy risks *trading authenticity*—the alignment of actions with deeper moral purpose—for a shallow, performative version of itself optimized for digital visibility.

The Decline of Responsibility and Justice

Lévinas (1961) frames ethics not as a set of rules that follow from being, but as an “infinite responsibility” toward the *Other* that calls to us even before we formulate concepts of self, knowledge, or community. The moment that face-to-face relation is re-routed through screens, dashboards, and automated recommendation engines, its moral intensity thins out. Within today’s digital academy—email negotiations, manuscript-tracking portals, LinkedIn talent hunts—the *Other* appears less as a concrete person and more as a data point or a profile to be leveraged. The recent LinkedIn episode, in which departments openly bartered for co-affiliation slots to boost their ranking scores, lays bare that erosion. Institutional labels were swapped like tradeable assets, with little reflection on how such transactions affect the real students, staff, and local publics whose identities those labels are meant to signify.

Justice inside the university has traditionally meant three intertwined commitments: (i) Accurate recognition of who actually contributed intellectual labor; (ii) fair distribution of resources such as grants, mentoring, and publication space; (iii) vigilant protection of the evidentiary record on which further scholarship depends.

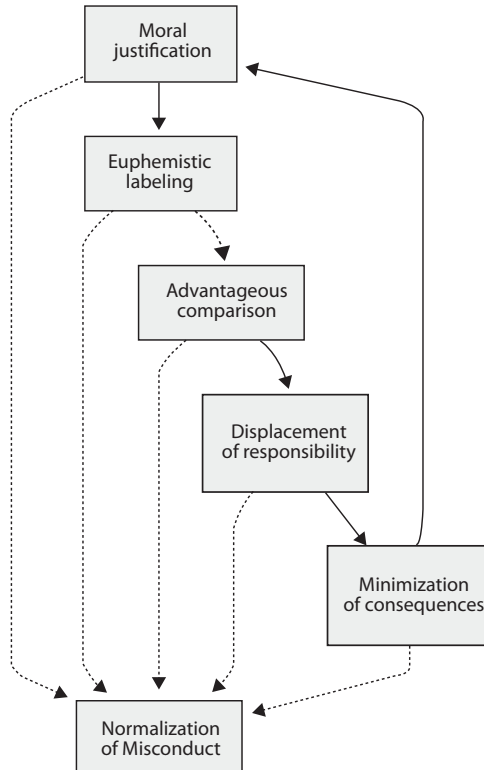
Algorithmic management tools—citation indices, funding dashboards, hiring filters—now promise to safeguard these ideals through objective measurement. Nevertheless, as Fraser (2008) warns in her discussion of “abnormal justice,” systems that look impartial from the outside can smuggle in distorted decision rules and opaque power relations. Ranking algorithms amplify advantages enjoyed by well-funded institutions; predictive analytics prioritize grant applicants whose past success already signals privilege; plagiarism detectors flag the prose of ESL write more often than that of native speakers. The decision pathway hides behind code or proprietary metrics, causing new hierarchies to materialize precisely at the moment they become harder to see. In effect, the machinery that was supposed to democratize recognition, distribution, and integrity installs a fresh regime of inequality while masking the tracks of injustice under a veneer of computational neutrality.

Moral Disengagement as a Systemic Feature

Bandura’s later work on moral disengagement (Bandura, 2016) describes the cognitive levers people pull when they want to behave unethically without suffering self-reproach.



Figure 4
The moral disengagement loop in academic publishing



The digitized academy has woven these levers into everyday routines, institutional policies, and even the user interface design of manuscript systems. Five mechanisms are particularly visible:

MORAL JUSTIFICATION

- Classic form: “I cheated because the stakes were high and my family depends on me.”
- Digital-academic variant: “Every lab in our field pads citations or pays paper mills—if we don’t, we won’t make the next ranking cutoff.”

Listen for crisis language and claims of inevitability. Require pre-committed standards before review cycles so reasons cannot be retrofitted later. Use cohort-level audits to compare behavior against the field

median, not against rumors. Pair amnesty windows with forward-looking fixes, for example retract and disclose, then institute caps on countable outputs. Teach the “least permissible shortcut” test: would you endorse this reason if your name were public and the rule applied to rivals as well.

A single glance at league-table metrics or funding-agency success rates is enough to frame questionable practices as collective self-defense rather than wrongdoing.

EUPHEMISTIC LABELLING

- Classic form: “collateral damage” instead of “civilian deaths.”
- Digital-academic variant: An example of a digital-academic variant includes phrases like “strategic collaboration,” “guest authorship,” or “impact-factor optimization,” which are used instead of the more straightforward term “authorship fraud.”

Build a plain-speech glossary that maps euphemisms to what happened. Add form fields that force concrete actions, for example “contributed methods section” rather than “collaborator.” Run a jargon lint tool on policies and call-for-papers. During reviews, ask for evidence that matches the verb, such as commit history, analysis notes, or correspondence. Penalize mislabeling even when the underlying work passes, since language shapes repeat behavior.

Journal submission portals and consultancy brochures normalize these phrases, allowing actors to hide moral stains behind managerial jargon.

ADVANTAGEOUS COMPARISON

- Classic form: “Yes, I lied, but I did not steal.”
- Digital-academic edition: “We are just tacking on honorary co-authors; the true villains are those who cook up entire data sets or resort to deep-fake images.”

Evaluate actions against a fixed norm, not against worse examples. Use sanction grids that scale with impact and intent so minor harms are still addressed. In class, run “ladder of violations” drills where each rung is judged on its own merits. Watch for moral licensing after small good deeds. Require a forward remedy, for example remove unearned authorship and correct records, rather than settling for comparisons.

By juxtaposing more minor violations of professional norms with high-profile cases of data fabrication, researchers shield themselves from the brunt of ethical critique.



DISPLACEMENT OF RESPONSIBILITY

- Classic form: “I was just following orders”.
- Digital-academic variant: “The tenure system, grant panels, and ranking exercises make it so it will be published this way; we have little choice in the matter.”

Map who decides what with a simple RACI table (responsible, accountable, consulted, informed). Insert human checkpoints where numbers are advisory, not binding. Require signed authorship and methods attestations from named individuals. Publish the decision trail for promotions and special issues so reasons can be inspected. Reform incentives, but do not let structure erase agency. If a rule made the outcome likely, change the rule and still address the choice that was made.

Responsibility is shuffled onto faceless structures: algorithmic dashboards, KPI scorecards, and automated citation trackers. Individuals understand that they are merely participating in a game.

*DISTORTION OR MINIMIZATION OF CONSEQUENCES*

- Classic form: “It was only a harmless prank.”
- Digital-academic variant: “Adding one extra name to the byline doesn’t hurt anyone; it’s just a line of text in a PDF”

Quantify downstream effects. Show how a single false credit alters h-index curves, grant scores, and shortlists. Use impact statements in retraction or correction notices that trace who lost opportunities. Pair minimization with case reflections from affected peers. Require remedial steps, for example corrected metadata, letters to committees, and redistribution of awards where possible. Make consequence tracking part of annual reports, not a one-off apology.

The tangible harms—misallocated credit, skewed hiring decisions, inflated institutional prestige—are rendered invisible behind a screen of abstraction.

What makes these mechanisms especially potent today is that they are no longer confined to private rationalizations inside a researcher’s head. First, they are codified in institutional policies (e.g., revenue-sharing models that reward journals purely by article volume); secondly, they are baked into platform architecture (e.g., “suggested citations” that nudge authors toward reciprocity networks); and finally they are reinforced by metric dashboards that refresh in real time, turning moral shortcuts into instantly visible performance enhancements.

Table 1
Comparison of Classical vs. Digital-Academic Moral Violations

Mechanism	Classical Form	Digital-Academic Form
Moral justification	“I cheated for my family.”	“Everyone buys citations to stay competitive.”
Euphemistic labeling	“Collateral damage”	“Impact optimization” instead of authorship fraud
Advantageous comparison	“At least I didn’t steal.”	“Not as bad as fabricating data.”
Displacement	“I was just following orders.”	“Ranking systems leave no other choice.”
Minimization	“It was just a prank.”	“One extra name doesn’t hurt anyone.”

Source: Own elaboration.

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This would be an example of what Zuboff (2019) has called “instrumentarian power”: power that operates not by explicit command and control, but by nudging the shaping of behavior through technological infrastructures backed by data feedback loops. Scholars alter their conduct—often preconsciously—to match what the platform rewards, while the platforms themselves remain largely outside the field of ethical visibility. The result is a self-reinforcing ecosystem where moral disengagement is no longer an individual psychological trick; it is the ambient operating system of digital scholarship.

Teaching in a Ghosted World

This section diagnoses how dubious research practices erode faculty role-modeling and produce a hidden curriculum that prizes metric manipulation over integrity. It then presents a pedagogy that fuses narrative imagination with algorithmic literacy through three classroom methods—case analysis, multi-perspective role play, and “digital archaeology.” The paper proposes a contemporary virtue-ethics toolkit (digital prudence, algorithmic temperance, cyber-courage, techno-justice) and lists concrete habits to instantiate those virtues (studio-style learning, rotating stewardship roles, structured reflective debriefs, and institutional safeguards). The goal is to help students and faculty see how systems sha-

pe behavior and to develop enduring practices that center inquiry, fairness, and accountability.

The Crisis of Role Models

When dubious research practices become routine, universities face an acute pedagogical paradox: how can instructors nurture ethical judgment in students while simultaneously condoning—or quietly benefiting from—the very misconduct they are supposed to condemn? The dilemma was captured with disarming candor by professor B.K Panigrahy in reference to the Pune faculty member who brokers “affiliate positions” for ranking points: “He is an honest economics professor, driving the economy of his university under instructions from top management” (personal communication, 9 July 2025). In other words, dishonest behavior is recast as institutional loyalty; moral transgression is applauded as strategic compliance.

Such cognitive contortions leave educators in a fog of normative uncertainty. Lecture hall homilies about plagiarism and scholarly virtue ring hollow when students can observe their mentors swapping authorship slots, massaging citations, or submitting AI-written abstracts to meet quarterly KPI targets. The classroom becomes a site of ethical doublethink: the syllabus prescribes integrity, while departmental practice rewards metric gaming.

Ortega and Gasset foresaw a similar danger nearly a century ago. In *The Revolt of the Masses* (1930), he deplored the “barbarism of specialization,” a condition in which professionals achieve razor-sharp technical proficiency yet remain ethically and culturally anemic. Today’s academic exemplars often fit the description: they master h-index optimization, open-access fee waivers, and social media amplification strategies but struggle to embody the intellectual honesty that higher education claims to cultivate.

The upshot is a generation of faculty who:

- Train doctoral candidates to slice a single dataset into multiple “minimum publishable units,”
- Regularly accept or offer “honorary” co-authorships to curry favor.
- Treat algorithmic similarity scores as a box-ticking substitute for genuine citation ethics.
- Gublicly endorse research-integrity policies while privately teaching students how to bypass them.

In such an environment, the subtle message that students learn is the one provided by the hidden curriculum: Success is not a result of exploring rigorously a question or a mystery, nor of reporting objectively what one finds, but of writing in ways that make the loopholes easy to find. The moral imagination that universities exist to develop effectively shrinks, limited to a strategic calculus of which rules can be broken without the risk of life-altering social-media shaming

DEVELOPING CRITICAL MORAL IMAGINATION

Nussbaum (1997) maintains that democratic citizenship hinges on “narrative imagination”—the cultivated habit of picturing life from vantage points other than one’s own and of empathizing with hopes, fears, and constraints that differ from our own biographies. In a university system increasingly mediated by code, dashboards, and recommender engines, the traditional narrative lens is no longer sufficient. Students and faculty must also acquire what we might call an algorithmic imagination: an intellectual capacity to visualize how technological infrastructures allocate visibility, distribute rewards, and encode bias—and to grasp the human consequences that flow from those hidden design choices. Where narrative imagination inquires, “What would it feel like to be that person?” we can say, “What goods does the system make possible or impossible for that person?” and algorithmic imagination adds, “What realities does the system make possible or impossible for that person?”

This double imagination can be animated through three pedagogical strategies:

CASE-BASED ANALYSIS

- *Method*: professors present a case with published incidents, like the Pune affiliation-trading scandal or mass retractions from image-manipulation rings, and ask students to map participants, motivations, and decision points.
- *Learning outcome*: By dissecting real-life cases, students come to see in action where general ideas (honesty, justice, and responsibility) clash with ranking tables, publication quotas, and venture-funded platforms. The exercise roots moral theory in the specific institutional ecologies.

Use a timeline with evidence tags so students distinguish allegation from proof. Require a “fork in the road” memo that outlines two plausible



actions at each decision point and the risks to different stakeholders. Add a counterfactual: What if the ranking rule or journal policy were different. This draws a line from policy to behavior. Score the post-mortem on how cleanly it maps cause to effect—clear boxes, straight arrows, testable links. Deduct for theatrics: if the slide ends with one villain’s face in red ink, you’ve missed the system and mistaken the assignment. Close with a policy brief that names one structural fix and its unintended effects.

MULTI-PERSPECTIVE ROLE-PLAY

- Method: teams are assigned stakeholder roles (graduate student, journal editor, university administrator, AI start-up executive, whistleblower) in seminars. They navigate a conundrum, such as whether to retract a paper based on synthetic data.
- Learning outcome: role-play makes participants take on competing imperatives (career survival, fiduciary duty, public trust), which will hone both narrative and algorithmic imagination. Students identify how ethical results depend not only on goodwill but also on technical limitations and power asymmetries.



Hand every participant a sealed brief: private data, red-line constraints, and a mandate that guarantees clash. Half-way through, e-mail a disruptive “new regulation” or “funder ultimatum” that rewrites the game board. Final deliverable: one joint decision document and, stapled to it, a compulsory dissent paragraph that immortalizes the minority voice in the official file. Assess outcomes by the quality of justification and the transparency of the decision-making process, and penalize performative behavior that lacks clear accountability (named owners, deadlines, measurable commitments). Finish with a post-role audit: participants step out of character and rate their team’s decision for fairness and feasibility.

DIGITAL ARCHAEOLOGY

- Method: students “source dig” into the simple tools of everyday academic work: They reverse engineer the weighting of a plagiarism detector, track the venture capital lineage of a citation index company, and map the geographic bias of a search algorithm.
- Learning outcome: this inquiry uncovers the sedimented histories, economic interests, and political choices written into ostensibly neutral software. It helps students learn to question default settings and to recognize hidden feedback loops so that

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they can avoid constructing things that lead to exploitation and inequality.

Pair every finding with a reproducible test. For example, run multilingual texts through the detector and report false positive rates by register. Build a “tool dossier” that includes ownership, data sources, known issues, and user costs. Require an exit strategy: a configuration change, a mitigation protocol, or a viable alternative, with trade-offs stated plainly. Evaluate on evidence quality and practicality. The risk is cynicism. Counter it by measuring improvements after applying the mitigation and reflecting on what remained unsolved.

Together, these practices move ethical education beyond rule memorization toward an embodied literacy in how stories and systems co-produce academic life. By pairing Nussbaum’s narrative imagination with a robust algorithmic imagination, universities can prepare scholars who not only empathize across human differences but also scrutinize and reshape the technological architectures that increasingly govern those differences.

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Virtue Ethics for the Algorithmic Age

MacIntyre’s *After Virtue* (1981) laments the collapse of shared moral narratives and proposes a return to an Aristotelian view in which stable communities cultivate character-forming habits. Translating that program into a digitized university means naming the particular excellences a scholar now needs and then creating routines that let those excellences take root. Four stand out:

DIGITAL PRUDENCE (PHRONESIS)

- Definition: the practical wisdom to sense how learning-management systems, citation dashboards, or generative AI will affect the integrity of one’s work and relationships.
- Example: Choosing to slow down an assignment cycle when a new large-language model update makes “push-button essays” temptingly simple, or deciding to publish code and data so that automation does not obscure reproducibility.

Prudence is situational, so teach it as timed checkpoints: pre-design (anticipate tool effects), mid-semester (audit unintended shortcuts), and post-mortem (record what to change next term). Pair every tech adoption with a “guardrail” (e.g., oral defenses, code notebooks, provenance statements). Evaluate prudence by evidence of foresight (risk logs,

contingency plans), not just outcomes. The failure mode is overreaction (blanket bans). Calibrate instead: allow assistive use with declared boundaries and verification steps.

ALGORITHMIC TEMPERANCE

- Definition: a disciplined wariness toward the seductions of numbers (impact factors, Altmetric donuts, h-index milestones) that can hijack scholarly motives.
- Example: Setting departmental caps on the number of papers counted toward annual reviews or deliberately valuing mentoring and community outreach alongside citation counts.

Temperance needs structural levers, not pep talks. Convert values into rubrics: set ceiling weights for any single metric; require a “narrative of contribution” and a “replication/negative-results” credit. Run sensitivity tests on your own promotion criteria to show how small weight shifts distort behavior. Track a “shadow ledger” of uncounted labor (mentoring, dataset curation) and fold it into annual reviews. The pitfall is metric substitution (new badges for old). Keep any quantitative indicator explicitly provisional.



CYBER-COURAGE

- Definition: the fortitude to call out questionable practices (paper mills, ghostwritten reviews, fake-author bots) even when such critique threatens rankings, grants, or collegial goodwill.
- Example: junior researchers signing a collective letter requesting an investigation into a senior colleague’s suspicious images, or an editor refusing fast-track submissions that bypass proper peer review.

Courage scales with protection. Build safe channels (confidential research-integrity ombud, anti-retaliation policy, legal counsel briefings). Normalize evidence-first reporting templates (image checks, data PRISMA, timeline). Run “courage drills”: give juniors a scrubbed dataset with a planted ethical trip-wire and five minutes to speak up while seniors answer, “Good catch—what do we do next?” Put “raised the alarm” in performance reviews, but pair it with clear due-process lanes so no one plays Twitter cop. When protection is codified, dissent stops feeling heroic and starts feeling normal.

TECHNO-JUSTICE

- Definition: a standing commitment to deploy digital tools in ways that widen, rather than narrow, access and recognition.
- Example: using open-source software and preprint servers to level resource disparities or auditing plagiarism-detection algorithms for bias against non-native English writers.

Treat tools as policy decisions. Run equity impact assessments before adoption (costs, bandwidth, language effects, accessibility). Maintain an “inclusion budget”: dedicate funds/time to translation, low-resource access, and assistive tech. Demand vendors open the hood, release full training provenance and subgroup error rates or lose their license to sell. Sunset any model that flunks a bias audit. Gauge justice by who gains and who gets sidelined, tracked through distributional dashboards and lived-account videos, not by how many clicks the dashboard collects. The risk is performative openness; tie openness to real stewardship—maintainers, documentation, and community governance.

MacIntyre insists these virtues cannot be memorized like policy clauses; they must be “habituated” through repeated action inside practices that have clear internal goods and communal standards. In concrete terms:

- *Studio pedagogy.* Embed students in research collectives where data transparency and code review are daily rituals, not special events.
- *Rotating stewardship roles.* Assign lab members to manage the shared Git repository, the pre-registration log, or the peer-feedback channel so that prudence and justice become muscle memory.
- Reflective debriefs. After each publication cycle, hold a postmortem asking which digital shortcuts were resisted, which were indulged, and how the group’s character was shaped in the process.
- Institutional guardrails. Craft promotion criteria that reward the public release of negative results or replication data as much as splashy citation counts, reinforcing temperance and techno-justice at the structural level.

Habituation of this sort resurrects what MacIntyre calls a “practice-dependent” conception of virtue (MacIntyre, 1981): scholars learn to want the right things by repeatedly doing the right things within communities that honor those efforts. Only then can digital prudence, algorithmic temperance, cyber-courage, and techno-justice solidify into the shared moral grammar the modern academy too often lacks.



Toward a New Pedagogy of Truth

This section outlines an ethics-infused digital-literacy curriculum that integrates technical competence with moral reflection. It proposes three interlocking strands—critical code studies, data-ethics workshops, and platform pedagogy—so students learn to read code as argument, foresee harms in data practices, and critique the commercial logics of ranking and recommendation systems. Rooted in Freirean critical pedagogy, the model turns dialogue and praxis into classroom practices that redesign evaluative metrics and challenge default platform configurations. Highlighting a new algorithmic reflection.

Integrating Ethics and Digital Literacy

Conventional digital-literacy courses rarely move beyond “how-to” tutorials—how to format a spreadsheet, verify a URL, or toggle a privacy setting. That skills-first approach leaves the deepest question unanswered: What kinds of human relations, power dynamics, and moral consequences are baked into the tools we are learning to master? We therefore propose an expanded, ethics-saturated model of digital literacy that treats technical proficiency and moral reflection as inseparable. The framework rests on three mutually reinforcing strands:



CRITICAL CODE STUDIES

- Purpose: to teach students to read code the way humanists read novels, looking for assumptions, exclusions, and value judgments.
- Practice: to annotate the source code of a plagiarism detector (or, if proprietary, its patent filing and white papers) to expose how similarity thresholds are selected, which linguistic registers are penalized, and whose cultural allusions are favored.
- Outcome: students come to understand that an algorithm is not a neutral machine but a polemical text, one that can—and in some cases should—be debated, revised, or rejected.

Begin with a single, auditable Lego brick—a ten-line tokenizer or cosine-similarity stub—then snap the rest of the castle around it; the first provable click reassures everyone that the bigger machine can also be opened up and counted. Require “diff diaries”: students record how a one-line change (stop-word list, n-gram size) alters outcomes on multilingual samples. This exposes hidden bias quickly. Common failure: treating do-

cumentation as neutral. Make students compare docs to actual behavior with unit tests on code-switched and ESL prose. Score the work on what can be run and measured (unit tests, error diffs, performance traces) not on adjectives in the abstract. Equity check: feed the model text that never went near an Ivy-League press (Swahili medical forums, Quechua tweets, Tamil zines) so the benchmark is not just English in a three-piece suit.

DATA-ETHICS WORKSHOPS

- Purpose: to confront the moral ripple effects of data acquisition, cleaning, modeling, and sharing.
- Practice: conduct a mock Institutional Revision Board (IRB) review of a project that scrapes conference abstracts for trend analysis, requiring participants to identify potential harms, hidden biases, and uncontrollable downstream reuse.
- Outcome: students develop habits of anticipatory reflection, learning to ask, “Who benefits? Who is exposed to risk? Whose voice is missing?” before a single byte is collected.

Move past checklist IRBs. Stage a five-minute “harm rehearsal”: each team member writes a one-sentence refusal from the viewpoint of the people most likely to be hurt (“Dear Professors, we decline because...”). Swapping lab coats for lived experience turns the checklist into a consent conversation. Require a “provenance manifest” with every dataset: origin, transformations, uncertainties, and access rules. The usual gap is post-release accountability; add a sunset review where teams revisit the dataset after four weeks and log any unintended uses. Grade on clarity of mitigation plans, not just identification of risks. Keep a bias budget: for every cleaning step, students must state which signals are lost and why that loss is acceptable.

PLATFORM PEDAGOGY

- Purpose: illuminate how learning-management systems, reference managers, recommendation engines, and social-media channels mold what counts as legitimate knowledge.
- Practice: map the revenue model of a citation database, examine how its ranking algorithm weights various fields, and simulate how small changes in weightings redistribute scholarly visibility.
- Outcome: Users become capable of repositioning themselves from passive consumers of platform outputs to active negotiators—or critics—of the epistemic terrain those platforms construct.



Treat platforms as institutions with incentives. Have students sketch a simple objective function (“maximize time-on-platform \times APC revenue”) and test policy tweaks against it. A 12% tweak to “international collaboration” or “open-access premium” often flips leaderboards, making fragility tangible. Add an “exit and voice” exercise: propose either a configuration change (voice) or a migration path to an alternative tool (exit), including costs to under-resourced users. Pitfall: moralizing without alternatives. Require a working prototype or settings guide (e.g., disabling “related articles” that bias toward the same publishers). Evaluate on feasibility and user impact, not just critique.

Pedagogical Philosophy

This triad extends Freire (1970) critical pedagogy—rooted in dialogue, reflexivity, and transformative action—into digital space. Freire concept of conscientização (critical consciousness) is translated here into “critical digital pedagogy,” where first the dialogue means not only speaking with peers but also “listening” to what code and data reveal about institutional imperatives; second the reflection is coupled with praxis: after analyzing a ranking algorithm, students might propose alternative metrics or draft an open letter to the vendor; and finally empowerment shifts from merely operating technology to shaping, contesting, and redesigning it in the service of democratic and equitable knowledge production.

By embedding ethical inquiry at every technical touchpoint, the revised curriculum cultivates graduates who can (i) debug both the software and the social biases it embeds, (ii) approach data sets with the same moral seriousness they would apply to human subjects, and (iii) recognize platforms as political actors rather than invisible infrastructure.

In short, critical digital pedagogy turns digital literacy from a checklist of competencies into a sustained practice of ethical, intellectual, and civic engagement with the technologies that increasingly govern academic life.

Algorithmic Reflexivity

The study argues that twenty-first-century scholarship demands a new form of self-awareness: “algorithmic reflexivity.” Where traditional critical thinking questions arguments and evidence, algorithmic reflexivity asks students to interrogate the very computational currents that steer what they see, read, and value. It is the discipline of pausing mid-scroll to ask, “Why is this paper, this metric, this ad the one that appears before me, and



what is it silently teaching me to desire or ignore?” To cultivate that habit of mind, courses can weave three iterative exercises into the curriculum:

ALGORITHMIC AUDITS

- Task: each student keeps a two-week log of how search engine autocomplete, citation manager recommendations, or social media feeds shape the sources they consult. Then, they reverse-engineer the signals (language, geography, co-citation networks) that the system used to reach those suggestions.
- Goal: render visible the invisible nudges that route literature reviews, topic selection, and even the phrasing of research questions.

Logs usually reveal patterned drift: students converge on the same few “safe” papers, often from well-indexed venues, while non-Anglophone or field-adjacent work disappears. The audit also surfaces how phrasing a query in different registers changes what appears. Have students run the same query from a campus IP, a mobile network, and a VPN to see localization effects. Assessment should reward the clarity of inference, not the volume of screenshots. The pitfall is fatalism. Close with a design move: “What three settings or disclosures would make this feed fairer?” That turns critique into capability.

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METRIC DECONSTRUCTION PROJECTS

- Task: work in small groups on something that can be measured or ranked in an academic context (journal impact factors, Altmetric badges, departmental league tables) and trace the data inputs, weighting models, and ownership/sponsorship model. They demonstrate how tiny changes to parameters redistribute prestige and resources across fields, regions, or demographic cohorts.
- Goal: demystify quantification; show that metrics are not natural facts but rather contestable artifacts, and encourage students to imagine fairer replacements.

Sensitivity tests are the turning point. A one-point weight change on “international collaboration” often reorders an entire table, which teaches students how fragile “excellence” can be. Require two deliverables: a short brief that states what the metric claims to measure and a counter-metric that aligns with a value the class names in advance, such as mentoring or data transparency. Common failure modes are treating ownership and incentives as afterthoughts. Make them central: who pro-

fits when this metric rises, and who pays. End with a public annotation of the metric’s webpage to practice accountable critique.

DIGITAL-ETHICS PORTFOLIOS

- Task: students maintain a “living document” all semester to document ethical dilemmas encountered in their digital workflows: scraping (posting data without an obfuscation step), using generative AI for prose or copy, and citing from the recommendations of opaque algorithms. They append to each declaration the relevant norms they followed in choosing their solutions, which are inspired by existing ethical guidelines, along with their own verdict and a subsequent evaluation of the consequences.
- Goal: establish a longitudinal practice of reflection that mines fragmented insights for a personalized working code for responsible digital scholarly conduct.

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Portfolios work when they are specific. Push students to paste prompts, commit hashes, and version notes, not summaries. The follow-up entry is crucial: “What changed after I chose X?” That temporal layer turns rule-following into judgment. Include at least one “reversal” exercise where the student revisits a decision after learning a new standard and writes what they would now do differently. Grading should privilege candor and course-connected reasoning over spotless behavior. The risk is performative confession. Counter scepticism by attaching bite-sized receipts: lock your search plan into a public registry, list every AI prompt in an appendix, or paste the consent email for that scraped dataset—small, checkable acts that turn transparency from slogan into footnote.

Conclusion

The uproar over the Pune-LinkedIn scheme is not a stray bit of gossip but a flare exposing a deeper shift in the academy’s moral scaffolding, where digital avatars, phantom co-authors, and KPI algorithms now co-write the scripts by which universities, departments, and individual scholars live, and where the priority cannot be a perpetual game of catching cheaters but a comprehensive reimagining of ethical life in a data-saturated university. Read across the spectrum—from Arendt’s warning about thoughtless conformity, through MacIntyre’s account of fragmented virtue, to Zuboff’s analysis of instrumentarian control (Zuboff, 2019), and one lesson re-

peats: durable reform must address both the machinery that shapes behavior and the character of those who operate it. The path forward requires institutional courage to break addiction to scoreboards and to re-anchor evaluation in quality, openness, replication, and public value; pedagogical innovation that embeds ethics in design studios, case simulations, and algorithmic audits; technological wisdom that meets AI and analytics with disciplined critique, transparency demands, and open alternatives; and moral imagination that dares administrators, instructors, students, and funders to picture universities where integrity overtakes efficiency. The weary aside “Why am I not surprised that this is from India?” mislocates a global pathology: metric worship, authorship peddling, and AI shortcuts are symptoms of a universal digital condition. Levinas’s call for ethics as first philosophy reminds us that responsibility for the other must precede calculations of profit or speed (Levinas, 1961). Recentering on that principle is how we dispel today’s digital ghosts and choose an academy where technology serves rather than supplants our shared moral life.

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Notes

- 1 The National Institutional Ranking Framework (NIRF) is a methodology adopted by the Government of India to rank higher education institutions in the country based on various parameters, including teaching, learning, and resources; research and professional practices; outreach and inclusivity; and perception.
- 2 A global company known for providing trusted insights and analytics to accelerate the pace of innovation. It offers various services, including the Web of Science, Journal Citation Reports, and InCites.
- 3 Article processing charge (APC) is a fee that authors typically pay to publishers for the processing, editing, and publication services they provide for their academic articles, especially in open-access journals.
- 4 These are publishers that specialize in producing academic journals, books, and other content in the fields of science, technology, and medicine.
- 5 Comma-separated values (CSV) is a simple file format used to store tabular data (spreadsheets or databases). In a CSV file, each line represents a data record, and each field within that record is separated by a comma.

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Data Availability Statement

The social media comments referenced in this article were collected from a public LinkedIn thread posted on July 9, 2025. The original post has been deleted, but the author has retained screenshots of the discussion, which are available upon request for verification purposes.

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TOWARDS A DIDACTICS OF THE CONCEPT OF ETHICS USING THE METHODOLOGICAL RESOURCE VIDEO

Hacia una didáctica de la ética usando el recurso metodológico video

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h-index: 1.

Abstract

This article attempts to propose and analyze a teaching method for the concept of ethics in initial teacher training, using educational videos as a methodological resource. The research arises from the need to move beyond traditional approaches to teaching philosophy, which are characterized by a one-way transmission of teacher-student knowledge, with little connection to pedagogical practice. It addresses the question of how to promote meaningful learning of ethics, integrating reflection on the concept itself and educational action through video. The main objective is to develop and analyze a proposal for teaching ethics based on Guy Brousseau's Theory of Didactic Situations, incorporating video as a methodological resource to generate formative experiences of reflection and dialogue. The study adopts a qualitative, case study approach with Education students at the Universidad Católica de la Santísima Concepción in the subject of Philosophy of Education. Based on the analysis of responses and after viewing films on video, two main categories are constructed: Ethical Action and Pedagogical Action. The results show that the use of video significantly promotes understanding of the link between ethics and pedagogy. It is concluded that the proposed teaching of ethics constitutes an innovation for humanizing university education.

Keywords

Didactics, Teaching, Ethics, Learning, Pedagogy, Video.

Resumen

El presente artículo busca proponer y analizar una didáctica del concepto de ética en la formación inicial docente, utilizando el video educativo como recurso metodológico. La investigación se plantea ante la necesidad de superar enfoques tradicionales de enseñanza de la filosofía, que se caracterizan por una transmisión expositiva unidireccional profesor-estudiante y con poca vinculación con la práctica pedagógica. Se plantea la situación de cómo promover un aprendizaje significativo de la ética, integrando la reflexión sobre el mismo concepto y con la acción educativa, a través del video. El objetivo central es desarrollar y analizar una propuesta de didáctica de la ética basada en la "teoría de las situaciones didácticas" de Guy Brousseau, en que incorpora el video como recurso metodológico para generar experiencias formativas de reflexión y diálogo. El estudio adopta un enfoque cualitativo, tipo estudio de caso, con estudiantes de la carrera de Pedagogía de la Universidad Católica de la Santísima Concepción, dentro de la asignatura Filosofía de la Educación. A partir del análisis de respuestas y luego de visualizar varias películas, se construyen dos categorías principales: *acción ética* y *acción pedagógica*. Los resultados evidencian que el uso del video favorece significativamente la comprensión del vínculo entre ética y pedagogía. Se concluye que la didáctica de la ética propuesta constituye una innovación para humanizar la enseñanza universitaria.

Palabras clave

Didáctica, enseñanza, ética, aprendizaje, pedagogía, video.

Introduction

The subject of Philosophy of Education is currently included in teacher training courses, and one of its contents is educational ethics, which is aimed at using theoretical knowledge to generate a reflective and critical view of education from an ethical perspective among students. It also serves as a basis for understanding the educational act as a final human action and, therefore, commits it to morality. This paper addresses the



problem of how to promote meaningful learning of the concept of «educational ethics» in education students, and its overall objective is to develop and analyze a specific teaching proposal based on Guy Brousseau's «theory of didactic situations,» which incorporates video as a methodological resource to generate formative experiences of reflection and dialogue. It proposes the existence of a teaching method for ethics based on student interaction with problematic situations that promote argumentation, reflection, and the personal construction of moral judgment. The importance of the topic is based on the fact that ethics constitutes the core value of teaching, and the use of educational video is conceived as a resource to mediate between philosophical theory and the reality of the classroom. Methodologically, a qualitative case study approach was adopted with a sample of ten education students. A questionnaire and analysis guidelines were used to collect data and responses that emerged during the viewing of the films *The Chorus* and *The Ron Clark Story*. The data were analyzed by coding and identifying categories related to pedagogical and ethical action.

Issues and foundations for teaching ethics in teacher training

The teaching of philosophy is a specific category of teaching and it incorporates different methods that arise and are used according to educational needs (Aguilar, 2019; Camacho, 2017; Castro *et al.*, 2020). In addition, it involves the problem of teaching how to philosophize and teaching philosophy; therefore, the teaching-learning process plays an important role (Aguilar, 2019). In ancient times, there are some general indications of this, for example, Socratic maieutics, or the teaching carried out in the Aristotelian school (Vargas & Quintero, 2023). In medieval times, scholasticism, with the *lectio* or commented reading of texts and the *disputatio* (debate of open questions) is another example of this (Villa, 2017). Therefore, there is little bibliographic background on educational ethics. The systematic development of philosophical didactics began in the 18th century due to the need for the humanities to demonstrate their scientific nature or dimension (Camacho, 2017; Vázquez 2012). However, there is little bibliographic evidence on the adequate teaching and learning of objectives related to educational ethics in a philosophy of education course for students enrolled in teaching degrees, thus revealing a lack of elements that enrich analysis and provide solutions to the problems rai-

sed. One of these factors refers to the devaluation of the teaching of ethics by society in general, which considers its incorporation unnecessary due to the great difficulty of translating the realities studied into empirical reality (Fratini, 2025; Gandolfo, 2018; Ordine, 2018). Another factor is the mentality of prioritizing the immediate over reflection on the teaching of educational ethics, which implies—as far as possible—doing everything in the shortest time possible, eliminating everything that is considered secondary (Lagos *et al.*, 2021). This is evident because, in the short and medium term, the economic benefits produced by the humanities do not make a difference in people's income (Bauman, 2003; Cerletti, 2008; Lee, 2022). Based on the above, in this study we propose a didactic framework for teaching the concept of ethics and pedagogy through the use of video as a methodological resource, in order to achieve meaningful learning outcomes in a teacher training process.

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Another aspect that leads to the main problem is that university teachers still have a certain preference for traditional, unidirectional teacher-student teaching resources, which are somewhat anachronistic with respect to the university's commitment to education from the perspective of meaningful learning (Cerletti, 2016; Córlica, 2020). It is clear that it reflects the difficulty teachers have in accepting that some methodologies for teaching ethics are obsolete (Elías, 2023; González & González, 2007). One reason for this situation is the belief that theoretical training is the best possible training (Nieto *et al.*, 2023; Villalobos & Melo, 2008). In addition, it should be noted that university teachers have a command of their respective fields of research, however, their teaching methods are far removed from the specific teaching process required for developing the subject of philosophy (Cerletti, 2016), which is characterized by the presentation of abstract ideas for the student's conceptual mastery, preventing or reducing the possibility of arguing or dialoguing, or developing critical thinking; there is an absence of a didactic approach to philosophy, which is characterized by the presence of content that is distant from the students' reality, ceasing to be a concrete experience of shared reflection.

Effects of the traditional approach to teaching educational ethics

In the 21st century, education has evolved worldwide to adapt to changes in society, and traditional education has long been an important part of the education system as it has proven effective in the past in responding to the needs of the time. It continues to be an important part of the education system in many countries (Ortega *et al.*, 2022). However,

«its relevance in the modern world is a matter of debate» (Cusme, 2023, p.53). While traditional education has valuable aspects, such as the direct transmission of knowledge, a hierarchical structure between teacher and student, and the use of standardized assessments to measure performance, among others (Cusme 2023; Acosta 2021), It is argued that traditional education does not favor adequate evolution for a world that is changing every second. It has been characterized by rote learning and routine intellectualism, which is reflected in students receiving a repetitive education that encourages blind knowledge. In addition, it has an inflexible and classroom-centered curriculum (Acosta Ballester, 2021; Galván-Cardoso & Siado-Ramos 2021). In this context, we consider that current challenges, such as cultural ones, for example, the COVID-19 pandemic, technological ones with discoveries in computer science, virtual reality, biotechnology, among others, and in the mass dissemination of knowledge in a way never seen before, such as social media, present significant challenges in the learning process. If we continue to teach as we have done in recent decades, we will be at a greater disadvantage, as we need to prepare people for what the world will be like and align ourselves with the changes that globalization has brought about in both university education and the world at large. (Cusme, 2023; Acosta Ballester, 2021).

Therefore, a process of teaching educational ethics under a traditional approach characterized by a unidirectional conception of the educational process, in which the teacher is the center of knowledge and the student plays a passive role, can lead to top-down learning that has an impact on students' skills (Galván-Cardoso & Siado-Ramos, 2021; Camacho & Morales, 2020; Nieto *et al.*, 2023); i.e., it fails to develop reflective and critical thinking about education as a perfectible activity; it does not address the challenges of education and pedagogy from an integrative perspective; and it does not understand the foundations of education from the perspective of philosophical anthropology. Therefore, students are unable to visualize or perceive the relationship that the presence of this educational ethics course should have as contribution to the graduate profile of a pedagogy degree (UCSC, 2009, 2016).

On the other hand, it also causes a work performance effect that is disconnected from the institutional graduate profile (UCSC, 2016), because if there is already a dilemma in the teacher training process, i.e., training teachers who only reproduce theoretical knowledge with little connection between practice and theory, ethics, and pedagogy, then it is evident that this will radiate into their future work performance. In other words, by not developing the expected skills, it will be more difficult for

students to embody the graduate profile in their work, i.e., they will not be reflective teachers capable of integrating ethics into educational action, they will not know how to take advantage of the context in which they must operate to transform their environment with the value profile that corresponds to the expectations of their profession in this university institution (Álvarez, 2012a, 2012b; Lee, 2022).

Another effect is a lack of motivation among students to engage in their academic duties. Interest and active participation decline because learning is perceived as distant, abstract, difficult, and irrelevant. This leads future educators to settle for the minimum. For example, they do not seek information independently, limiting themselves to what the teacher teaches in class, and their attendance is at the minimum required, even below expectations, even if this means failing the course (Carrillo *et al.*, 2009; Londoño & Rojas, 2020; Valenzuela *et al.*, 2015).

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Towards a didactics of ethics in teacher training

The philosophy of education courses taught in teacher training aim to develop a reflective and critical view of education in students as an activity that can be perfected, just as the human being can be perfected (UCSC, 2009 and 2016). It deals especially with the analysis of being, the educational fact and process, and the purpose of education, in its ontological, ethical, and anthropological aspects, which must serve as the foundation for pedagogy as a science and for the understanding of the educational fact as a final human action and, therefore, one that commits it to morality. This subject allows students to approach education and pedagogy not only as a theoretical reflection, but also from an integrative perspective, with attention to the fact that it is an eminently human phenomenon and, therefore, corresponds to exclusive categories, among which quality and relationship stand out.

For its part, the didactics of philosophy is understood as the «teachability» and contextual dissemination of philosophical knowledge, which involves the contextualization of philosophical thought in pedagogical practices that favor the understanding of concepts and problems. The proposed position is associated with the relationship between the teaching of philosophy and the teaching of philosophy as conceptual knowledge (Boavida, 2006; Shulman, 1987). In other words, it is proposed that the teaching of philosophy cannot be reduced to a mere repetition of content, but rather to different elements that allow us to truly stimulate learning, reflection, and the exercise of thought (Azar, 2015; Cerletti,

2008; Gómez, 2003; Perelló, 2008), since philosophy plays a role in the project of comprehensive education of the human person. Furthermore, in this context, it is noteworthy that philosophical learning is an important means for university students not only to become good professionals (Alonso Sainz & Gil Cantero, 2019), but also to become better people, as Kohan (2010) states, «philosophy as a science proposes a theoretical instrument for being critical and proactive, attempting to overcome the appearances of reality—including that of verifiable data. What does philosophy seek to teach us? Above all, that we are human» (p. 30). Therefore, teaching philosophy is a real challenge for universities, as it requires an effort on the part of teachers to create conditions that encourage questioning and argumentation in their teaching process, so that students can learn more than others, develop their own thinking, and adopt a certain attitude towards life (Azar, 2015).

The importance of learning and teaching philosophy in higher education is not a motivation or interest of a small group, as it has great international recognition (UNESCO, 2007). However, Carvajal and García (2011) point out that there are factors that can hinder learning, such as «poorly prepared teachers and inadequate teaching materials» (p. 9). From this perspective, it has been projected onto philosophy in general, which has been influenced by teachers and books that, rather than accompanying and contributing to the process and knowledge, become obstacles (Picardo, 2002). For his part, Cerletti (2008) is much more emphatic, stating: «Philosophy has always been marked by the stigma of useless knowledge» (p. 51). However, this does not mean that students, despite these teaching difficulties, do not make an effort to learn philosophy within their means, as they have certain notion that the practical aspect of this discipline greatly helps them in their personal lives (Camacho & Morales, 2020).

Based on this relationship between the philosophy of education and the teaching of philosophy, progress is being made towards the formulation of a teaching of ethics, understood as *the teachability and contextual dissemination of ethical knowledge in higher education training processes*. The teaching of ethics does not focus on the transmission of normative ethics or moral doctrines, but rather on the development of students' reflective capacity to analyze the ethical implications of their pedagogical work through teaching situations that relate to the subject's experience, recognize the philosophical foundations of their decisions, and develop the ability to reflect on their actions and pedagogical work. In this sense, the teaching of ethics is approached from theoretical refe-



rences in mathematics education, specifically Guy Brousseau's theory of didactic situations (1986, 2007, 2013), which considers learning as adaptation to the environment. This theoretical didactic framework is proposed because, together with philosophy, both disciplines have common elements, such as explaining reality using abstract models (Cabero & Muñoz, 2019) or, as Saneen (1999) points out, mathematics and philosophy have coincided in explaining the world and its transformation. Therefore, an integrative didactics is proposed between the teaching of mathematics and the teaching of ethics. One of the fundamental aspects of teaching any discipline is that teaching is not comprehensible without full mastery of the conceptual content (Loewenberg Ball *et al.*, 2008; Shulman, 1987). Thus, the teaching of ethics is proposed as a specific teaching method, an extension, aimed at the value-based training of teachers from the subject of philosophy of education.

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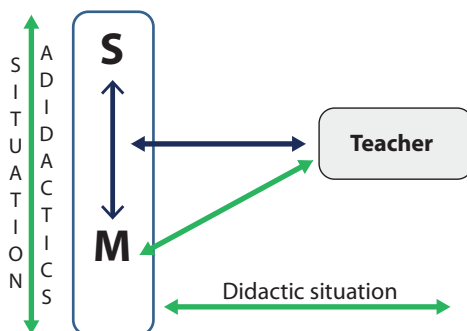


The teaching of ethics and its management in teacher training

It was pointed out that the teaching of ethics deals with the teachability and contextual dissemination of ethical knowledge for the achievement of meaningful learning in the field of teacher training. Teachability implies that the teacher must characterize and exercise ethics in the development of the class based on concrete moral experiences and conflicts, in order to approach a formal definition of the ethical object being taught, assuming that the learner, the student, lacks a formal conception of the concept, i.e., they do not possess institutionalized knowledge. This teaching process is different from explaining the answers of a philosopher in a specific historical and cultural context (Cerletti, 2020, 2008, 2016); rather, it is a process that allows students to appropriate knowledge; it is a process of noesis (Duval, 1999). It has already been pointed out that the didactic processes of mathematics and philosophy can be similar. From this perspective, the proposed didactic theoretical framework involves three consecutive actions. The first is to understand, as Brousseau (1986, 2007) points out, that learning occurs through adaptation to the environment (M), i.e., the academic proposes a teaching activity that causes modification in the environment (M) of the subject (S) or student, generating contradictions, difficulties, and imbalances; the student (S) interacts with that environment, provoking new responses that are evidence of learning. The academic's interaction takes place through a problem, questions, or inquiries about some object of knowledge. Linked to the environment (M) of the student or subject (S). The teaching activity proposed by the

academic is called a «didactic situation,» and the student's response activity is called an «adidactic situation» (Brousseau, 1986). Figure 1 shows the interaction.

Figure 1
Relationship between didactic situation and adidactic situation



Source: Own elaboration.

The second action is that the academic must provide a teaching situation that provokes an ethical conflict that requires reflection. This should be a real, everyday situation that generates confusion or conflict in the student's ethical conception, and in no case a pre-structured definition. After the teaching situation has been presented, the learning situation begins, in which the student takes on the question or problem and resolves it using their own resources and means, prompting reflection and new responses, which they then communicate to the teacher, thus ending the learning situation. The third action is for the teacher to explain the relationships between the knowledge constructed and communicated by the student and institutionalized knowledge, thus recognizing the validity, relevance, and usefulness of this new knowledge proposed by the student (Brousseau, 1986, 2007).

The processes of adaptation, teaching situation, and institutionalization are carried out in classroom management, i.e., structured and orderly planning that allows for the prediction and anticipation of teaching actions and guides the development of the educational act in practice and action. Classroom management involves three stages:

Table 1
Stages of classroom management in the context of ethics teaching

Stage	Description
Preparation	This involves a teaching situation, a specific problem or task that leads to a dialogue between teacher and students, and the verbalization of ideas and proposals, using the methodological resource of video.
Implementation	This involves the validation and institutionalization of students' responses and reflections in front of their class, managed by the teacher.
Integration	This involves the use and application of the ethical concept or object being studied to the student's reality and contextual dissemination.

Source: Morales (2018 and 2019).

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Structuring classroom management through these stages allows us to understand that the educational process requires a deep understanding of the ethical content being taught and the teacher's ability to transform ethical knowledge into teachable knowledge situated in a specific context of higher education.

Knowledge of ethical content and its didactic transposition for teachability

The didactic process of ethics begins with didactic transposition (Chevallard, 1991 and 1999), i.e., the wise knowledge of ethics is transformed into teachable knowledge by the academic, who then prepares and develops the didactic process. In this case, knowledge of the content of the object of ethics is considered to be approached in the following way. When asking what ethics is, concern for human beings inevitably arises, since men and women are ethical beings by nature (Cortina & Martínez, 2008). Certainly, there is a relationship between ethics and education, rooted in the aspects of decision-making, reflection, and the subsequent application of criteria in everyday human dispositions (Herreño, 2019). Asking how humans should act will always be a big question, but it is understood that the answer cannot be left to chance. The essential difference between humans and other animals does not consist of a different organ, something equivalent to wings or hooves; the novelty lies in a quality as

real as it is immaterial: intelligent freedom. So real that it makes us belong to the species *Homo sapiens* (Ayllon, 2010).

When we begin to reflect on the meaning of ethics, certain questions arise, such as: What should be the meaning of ethics? Who or what determines the value of actions? Why is ethics necessary? Does ethics affect or compromise human freedom? All these questions have something in common, namely the fact that we must act at any given moment using our reasoning, developing ourselves as what we are: rational beings. Undoubtedly, the relationship between ethics and morals must be considered, especially in order to address the fact that we are embedded in culture. This means that none of us is immune to what happens around us on a daily basis. From this perspective, ethics will always be an opportunity to observe and assess our environment, as it allows us to broaden our horizons and makes us responsible for our actions. Morals will always be considered in a more limited sense, whether cultural or religious. It seems that in the culture of students there is a delayed acceptance of responsibility. Responsibility is not given; conscience fails and individuals blindly comply with rules without reflection (Bauman, 2003; Guerrero & Gómez, 2013).

Therefore, it is imperative to give new meaning to ethics, which means reevaluating its conception so that it is no longer seen as a merely prohibitive and moralistic issue, but rather as a human and practical issue that will guide people. This allows us to establish a didactic process of ethics, the limits of the concept when confronted by students, as well as its depth. In this way, the didactic process of ethics is guided and suggested by didactic transposition; teaching ethics to secondary school students is not the same as teaching it to university students, since didactics implies contextual dissemination (Camacho & Morales, 2020; Morales, 2019).

The teaching process involves a relationship and knowledge of the content to be taught with the formal and scientific conception of the concept; this has already been referred to as didactic transposition (Loewenberg Ball *et al.*, 2008; Chevallard, 1991; Shulman, 1987). In the case of ethics, didactic transposition allows us to establish that ethics enables people to talk about moral issues in a more conscious and open way. It can also help people make more accurate moral judgments and encourages students to defend their behavior in public, in addition to its ability to transcend theory based on the ideas presented and developed (Andrea de Bennato, 2009). Thus, a program focused on virtues, for example, is more likely to influence behavior than theoretical knowledge about moral dilemmas. Therefore, teaching ethics and its content can only be concei-



ved as an invitation to awareness with the main objective of alerting the subject to what distinguishes them from other beings in nature and, with this knowledge, trying to determine what is most appropriate (Guerrero & Gómez, 2013). This awareness of ethics is gradual and profound, and will have repercussions on the subject's willingness to act in pursuit of happiness and respect for the dignity of others (Sánchez, 2020).

*Video as a methodological resource for teaching ethics
within the proposed didactic framework*

The use of educational video as a methodological resource can present meaningful teaching situations that provoke contradictions and imbalances close to the student's own experiences. When carrying out the preparation stage indicated in Table 1, real human situations are represented through the video, allowing suggestions to be made on how to approach the concept of ethics. The high accessibility that a teacher can have to stories or narratives through video was the basis for its use in this research. According to Bravo (2000), video is understood as a «system for the instantaneous capture and reproduction of images and sound by electronic means» (p. 3). In the educational context, it can be specified that it serves to achieve a learning objective or mastery of curricular content, as it is motivating, captures the viewer's attention, is modeling, and is a way of bringing real life into the classroom (Blasco *et al.*, 2016; Riccio Anastacio *et al.*, 2017). However, a video does not teach simply because it is viewed by students, so it is necessary for the teacher to design an ethical teaching process that guarantees meaningful learning (Blasco *et al.*, 2016) and the institutionalization of knowledge.

The educational video adapts to each student's pace, thereby creating an active subject that enhances their own learning, improves comprehension, and enables repetition, which serves to consolidate and reinforce what has been learned. It is a methodological resource that promotes the inclusion of a wide range of students, as it provides all the conditions and characteristics of accessibility, since the video is equitable for all users, flexible, and benefits the entire educational community, including those with different abilities (Rodríguez García *et al.*, 2019).

Class management according to the proposed framework for teaching ethics, which integrates video, takes into account the following stages:



Table 2
Stages of classroom management within the framework
of ethics teaching through the use of video.

Stage	Description	Activity with the video
Preparation	Stage in which the teaching situation is presented, which acts on the student's environment to initiate meaningful learning. It should be a motivating situation that is unfamiliar to the student, but which, by acting on the environment, allows them to adapt and generate learning.	The teacher presents a video containing an ethical dilemma or an everyday situation. Then asks guiding questions to encourage discussion and connect the story in the video with the ethical issue being studied.
Implementation	Stage in which the teaching situation unfolds, in which students answer the question based on their own knowledge (their environment). The dialogue that takes place is guided by the teacher so that it moves toward the institutionalization of the concept of ethics.	The teacher listens and guides the responses by involving the students, both individually and as a group, and producing a validation process among the participants, who express their opinions and arguments, as in a colloquium. When the responses are close to a group agreement, the teacher grants or presents the institutionalized ethical concept.
Integration	Stage in which students use the knowledge they have learned and transfer it to other situations, consolidating their understanding of the ethical concept and its application in various contexts.	The teacher presents other videos with other cases and opens the discussion in a colloquium-style format. Students already have meaningful learning about ethics and integrate or compare it to new educational situations that arise from the videos.

Source: Own elaboration.

In this way, the video as a methodological resource acts as a mediator between the ethical concept being addressed and educational practice, as it stimulates cognitive aspects such as reflection and critical thinking, transforming the video into a decision specific to the teaching of ethics, capable of generating learning experiences.

Methodological framework

This study seeks to analyze the effects of using educational video as a methodological resource within a framework of ethics teaching, in the context of the Philosophy of Education course in initial teacher training. A qualitative case study design is used to observe student learning in response to the teaching proposal implemented.

The study adopts a qualitative paradigm, as it focuses on a deep understanding of the meanings that participants attribute to the training experience (Lamoureux, 2006; Paillé & Mucchielli, 2013) and observes how the use of video in the framework of ethics teaching affects student learning. This is an exploratory descriptive case study (Hernández Sampieri *et al.*, 1996; Rodríguez *et al.*, 1999) with the purpose of examining a specific phenomenon in its natural context.

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Research design

The qualitative design begins with the intervention of the academic, who presents the teaching activities with the support of the video. It begins with the true story of American teacher Ron Clark (Haines, 2006), who helps his students overcome the difficulties that hinder learning. It then addresses *The Chorus* (Barratier, 2004), which shows the transformation of a group of students through the guidance of the teacher and music. Students watch both films, and the stage protocol is applied in the classroom teaching process, posing a question or didactic situation.

Table 3
Stages and teaching situation

Stage	Activity
Preparation	Students are shown selected scenes from the video and are asked a guiding question to begin the teaching process: "Select and describe at least five scenes from the film that you think are related to philosophical or pedagogical actions and explain why you chose those scenes."
Implementation	Students discuss the selected scenes and synthesize their reflections and responses as a group. Based on these, the teacher institutionalizes knowledge of ethics. To do this, the teacher asks the following guiding question for the reflection: "Explain whether what is expressed in the films helps to demonstrate the contribution of philosophy to improving the quality of education."

Integration	Students apply the conceptualization of ethics to other pedagogical situations. The following question is posed: “Based on the scenes, what do you think are the relationships that can be established between philosophy, ethics, and pedagogy?”
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Source: Own elaboration.

Units of analysis and data processing

The sampling type is non-probabilistic for convenience, consisting of 10 students, organized into two groups of five members, solely for the purpose of facilitating collaborative work during classroom sessions. The students are in their first year of the Differential Education Pedagogy program and are taking the Philosophy of Education course at the Faculty of Education of Universidad Católica de la Santísima Concepción.

The processing and analysis of the information is descriptive, using qualitative analysis techniques, with a process of coding units of meaning and constructing interpretive categories (Lamoureux, 2006; Paillé & Mucchielli, 2013; Rodríguez *et al.*, 1999). The process included the initial coding phase, identifying recurring ideas related to the understanding of ethics and its relationship to pedagogical practice. Next, categories were constructed, grouping together similar ideas related to ethical learning. Finally, the categories were interpreted and analyzed within the theoretical framework to establish conclusions associated with the research objective.



Results

During the lesson preparation stage, after watching the video, students are asked to: «Select and describe at least five scenes from the film that you think are related to philosophical or pedagogical actions and explain why you chose those scenes.» The most representative responses were as follows:

- *First scene:* Clark accepts the challenge of teaching a low-performing class despite all the references and warnings that he would not be able to reverse this situation due to contextual circumstances. The pedagogical action is that he has confidence in his professional knowledge and commitment to educating his students. The ethical action is that he demonstrates an attitude based on confidence in his abilities as a teacher and those of his students, as a personal challenge, understanding teaching as a moral and human challenge.



- *Second scene:* Clark visits the homes of each of his new students to learn more about their environment and request maximum family support. The pedagogical action is that he wants to know more about the context and reality in which each student lives, in order to have a clearer idea about his methodologies and adapt his teaching. The ethical action is that he reflects a concern for educational justice by investigating the context of his students and being able to understand why they are unmotivated, getting involved and recognizing the other as a subject.
- *Third scene:* Clark goes to his student Shamika's house to see how she is doing with her homework, and she is very busy taking care of her siblings, which prevents her from making progress. He decides to take care of her siblings and cook so that she can finish her schoolwork in peace. The pedagogical action is that Clark recognizes the personal circumstances of his students and what type of student he is dealing with in order to support and adapt in the most appropriate way. The ethical action is empathy and understanding of why Shamika was not completing her schoolwork.
- *Fourth scene:* Clark composes a song about US presidents, with the intention of getting their attention and helping his students learn easily. The pedagogical action is that Clark adapts the curriculum in a didactic way according to the needs and interests of the students, with the aim of motivating them in their studies. The ethical action is that learning is conceived as a human action with meaning and moral value.
- *Fifth scene:* Thanks to Clark's effort and perseverance, his students achieve good results on their final exam. The pedagogical action is that the assessment seeks to measure learning according to individual abilities and knowledge. The ethical action values the students' improvement and responsibility, enabling them to achieve their goals.

In the implementation stage, the teacher proposes the activity: «Explain whether what is expressed in the films helps to demonstrate the contribution of philosophy to improving the quality of education.»

The students' initial responses were less thoughtful. Regarding Ron Clark's video, a student from group 1 points out that «Mr. Clark decides to go to a place in need of education despite having a good job where he was,» which is a descriptive response without relating the pedagogical

cal and philosophical dimensions. Then a student from the same group added, «Despite the students' behavior, Clark decides not to give up and to move the class forward,» which is also a descriptive response. A student from group 2 pointed out, «When Mr. Clark decides to go to the school, he observes the most disorderly class, and that is the one he wanted and proposed for himself,» which also implies a descriptive response.

A reflective feedback activity on concepts is then carried out, and some of the most interesting responses given by groups 1 and 2 are:

Teacher Clark goes to his student Shamika's house to see how she is doing with her homework, and she is very busy taking care of her siblings, which prevents her from making progress. He decides to take care of the siblings and cook so that she can finish her schoolwork in peace.

After this description, the students analyze the ethical action: «There is reflection and understanding of why Shamika was not doing her schoolwork.» Then, they analyze the pedagogical action: «Clark must recognize what type of student he is dealing with in order to support and adapt to her in the most appropriate way.» It is evident that the educational video has a positive impact on the expected learning, providing a response that ranges from the empirical to the theoretical and is capable of delving into the ethical realm.

In the case of *The Chorus*, group 1 points out:

The methods used by the director, Rachin, who disciplines his students with an iron fist: action and reaction! is his pedagogical motto. What he did not imagine was that he would only earn the hatred and resentment of all the people in his care, generating even more rebellion and violence on the part of the students.

Therefore, when analyzing this response, it is clear that a certain depth of educational reflection has been achieved, which means that the educational video is helping to produce a favorable impact on the learning process.

Next, group 1 describes the protagonist:

The character of Prefect Clement, a man of good feelings with a different way of educating, with new philosophies and ideologies, who comes to revolutionize education and the way teaching was taught in that school, instilling better behavior and feelings in the children based on incentives, rewards, and dialogue with them, earning their trust and respect in a peaceful and loving way.

It is seen how the concepts of ethics and education change people for the better. In summary, this student learns through the method of analyzing an educational video, in addition to a relationship with the subject matter covered in the semester.

For the same film, group 2 points out: «The choir and music classes are a means of teaching them that there is another form of education that regulates impulses rather than punishing them aggressively,» which is interpreted as the application of the educational video analysis methodology, i.e., the relationship between an empirical aspect and a topic covered in class, in this case the teacher's teaching methods.

Group 2 also notes:

The culture of life allows us to live well with ourselves and guide others on the right path, and when we do this, we create a good atmosphere around us, which makes us feel good, so we can live happily and in harmony with the people around us.

At this point, there is a significant advance, as there is a deepening of an ethical concept when mentioning «culture of life,» which, although it has an empirical basis, emphasizes reflection itself. Here, the application of the educational video analysis methodology is fully present, in addition to making a connection with the subject matter covered in class: that education desires the virtue of human beings.

In the integration stage, the guiding question is: «Based on the scenes, what do you think are the relationships that can be established between ethics and pedagogy? Justify your reflection.» One of the relevant answers from both groups of students is:

Teacher Clark goes to his student Shamika's house and takes care of her siblings and cooks so that she can finish her schoolwork in peace. There is reflection and understanding of why Shamika was not doing her schoolwork, and Clark must recognize the characteristics of this type of student in order to support her in the most appropriate way.

Another relevant reflection by the group of students is that: «What is expressed in the film does contribute to demonstrating the presence of philosophy in improving the quality of education, since pedagogy is directly involved with ethics.» Two fundamental categories emerge from this set of responses: ethical action and pedagogical action, which are analyzed below.



Analysis of results

The results show that the educational video had a positive impact on students, as evidenced by their ability to identify significant scenes in the educational context. Likewise, there was a successful articulation between the philosophical and pedagogical dimensions. Students are able to deepen their learning process, as they can argue about the close link between philosophy and pedagogy. Certainly, this shows a developing educational process, in which ethical reflection is evident in pedagogical action.

Based on the students' responses, the following categories are proposed, as outlined in Table 4.

Table 4
Category and subcategories of analysis

Category	Subcategories	Analysis Group 1 responses	Analysis Group 2 responses
Ethical action	Virtue	Despite the students' behavior, Clark decides not to give up and persevere in order to help the class move forward.	The teacher decides to go to a place in need in the field of education despite having a good job where he was.
	Effort	With a lot of effort, dedication, and patience, Clark manages to help the class move forward, not only academically, but also as people.	The teacher offers classes on Saturdays to support each student in their learning.
	Empathy	To help the students, Clark decides to get to know them better, to get to know each one of them.	The teacher wants to visit the homes of his students and their families.
Pedagogical action	School integration	The teacher intends to go to a context of need in the educational field despite having a good job.	The teacher offers classes on Saturdays to his students to help them.
	Teaching	Clark adopts different teaching methods to make learning enjoyable and easy to understand for his students.	Clark proposes the student that if he learns to jump the rope, the students must learn all the material for 7th grade.
	Dialogue	Clark establishes relationships of trust and respect to enhance the group's overall learning.	Clark engages his students through dialogue and agreement as pedagogical tools,

Source: Own elaboration.

The analysis shows that the students achieved significant learning and met objectives related to understanding ethics and pedagogy. The proposed activities allowed or promoted processes of reflection on the teacher's pedagogical commitment and helped students visualize that ethical and pedagogical actions are oriented toward the comprehensive development of individuals.

Although the impact is more evident when the activities are summative assessments, it is also clear that there are formative activities that contribute to visualizing learning progress. It is evident that the use of educational videos contributes to strengthening the formative process, becoming a mediator that allows for the creation of didactic situations so that students can generate their own responses associated with the didactic situation, when faced with ethical and pedagogical dilemmas. In addition, they promote institutionalization guided by the teacher, favoring the construction of ethical and pedagogical actions consistent with their teaching practice.

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Conclusions

Planning a process for teaching ethics in the context of initial teacher training requires specific teaching methods based on a solid theoretical framework that guides educational practice for the development of ethical and pedagogical reflection. The proposal for specific teaching methods for ethics, based on Brousseau's theory of didactic situations (1986, 2007), shows that the teaching of ethics can be structured as a process of adaptation to the environment, where students are confronted with a problematic situation activated or evidenced through the use of video, which leads them to reflect on, construct, or redefine their own ethical knowledge.

The implementation of educational video as a methodological resource is revealed as a relevant way to generate meaningful teaching situations, capable of provoking reflection, dialogue, argumentation, and understanding of the moral meaning of teaching practice. Video does not act as a passive means of exposure, but as a device or resource that activates cognitive or emotional processes, which allow for the construction of ethical meanings or concepts.

The results show that the use of video as a resource for teaching ethics articulates the understanding of the relationships between ethics and pedagogy and enhances the development of human characteristics associated with them. Virtue, effort, and empathy are fundamental to profes-

sional teaching performance and to achieving a comprehensive education that strengthens the identity and moral commitment of future teachers.

Based on the evidence obtained, the proposed teaching framework allows teachers to institutionalize ethical knowledge within pedagogical practice by transforming it into a meaningful experience for students. In this sense, its implementation can help overcome teachers' preference for traditional and unidirectional teaching methods, which are still present in higher education. This proposal for teaching ethics through video leads to a concrete contribution to the graduate profile of teachers, aligned with the humanistic and value-based principles of the university educational project, which conceives the human being as the center and end of educational action.

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Declaration on the use of artificial intelligence
The authors Hernán Andrés Morales Paredes and Luis Rodrigo Camacho Verdugo of the article entitled: «Towards a didactics of ethics using the methodological resource of video,» DECLARE that the preparation of the document did not rely on the support of Artificial Intelligence (AI).

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CHALLENGES TO THE EDUCATION FOR PEACE, GALTUNG AND VIOLENCE IN DIGITAL SOCIAL NETWORKS

Retos de la educación para la paz, Galtung y la violencia en redes sociales digitales

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Abstract

The main objective of this article is to provide a categorization of violence on social networks in relation to the Education for Peace project. This categorization is based on Johan Galtung's theory of the triangle of violence and UNESCO's recommendations. First, the UNESCO Guidelines and recommendations regarding Education for Peace are introduced. This is followed by an exploration of the three types of violence proposed by Galtung—direct, structural, and cultural—in a general manner and in the context of how they operate in social network settings. The proposed theoretical framework is considered as a basis for identifying how these forms of violence are interrelated and reinforced in, and because of, social networks. Finally, both Galtung's and UNESCO's recommendations are discussed in the face of violence in these digital environments, highlighting the importance of including this phenomenon in such Education for Peace proposals. As a result, the outline of a conceptual framework that connects the theory of violence with digital dynamics in the context of social networks is proposed as a step in the development of targeted educational solutions for addressing all direct, structural, and cultural violence in digital environments.

Keywords

Peace culture, Digital Technologies, Education, Violence, Citizenship Media, Network Society.

Resumen

Este artículo tiene como objetivo principal ofrecer una categorización de la violencia en redes sociales y su relación con la educación para la paz, tomando como base la teoría de Johan Galtung, específicamente, su propuesta sobre el "triángulo de la violencia" y las propuestas de la UNESCO. En primer lugar, se presentan las recomendaciones de la UNESCO, así como sus directrices de la educación para la paz. Posteriormente, se exploran de manera general los tres tipos de violencia propuestos por Galtung—directa, estructural y cultural— así como su manifestación en el entorno de las redes sociales. Se considera que el marco teórico propuesto sirve como base para identificar cómo estas formas de violencia se interrelacionan y se amplifican en y debido a, las redes sociales. Finalmente, se discuten las recomendaciones realizadas por Galtung y la UNESCO ante el problema de la violencia en redes sociales, subrayando la importancia de incluir este fenómeno en dichas propuestas educativas. Como resultado, se propone el esbozo de un marco conceptual que conecta la teoría de la violencia con las dinámicas digitales en el contexto de las redes sociales, en sus tres vertientes: directa, estructural y cultural, esto se presenta como un paso en el desarrollo de soluciones educativas concretas para atender el problema de la violencia en entornos digitales.

Palabras clave

Cultura de paz, tecnologías digitales, educación, violencia, ciudadanía mediática, sociedad red.

Introduction

The main objective of this article is to incorporate a concrete analysis of violence in digital social networks (SNS) into the theory of violence and the study of its solutions. Given the preeminent place of these digital environments in our communities as spaces for the dissemination of information, expression, interaction, and other communicative phenomena, it is necessary to analyze the ways in which violence is expressed within these sites. In this way, we can identify its causes and forms so that its consequences can be avoided. In this sense, this paper presents a theoretical-



conceptual analysis of the problem that seeks to contribute to the discussion necessary for the construction of peace in the contemporary world.

Social media are digital spaces where internet users can share experiences, ideas, and communicate with other people. Although relationships on social media are different from non-digital ones, there are elements of physical interactions that are replicated or extended on these networks, including: communication processes, information exchanges, argumentative processes, discussions, and debates, some of which have significant political implications. Consequently, social media users, by generating and sharing content and reacting to that of others, have a greater or lesser degree of responsibility for creating informative environments of civility and mutual respect with others (López Farjeat & González Fernández, 2021).

The relevance of the proposal made in this work is framed within the context of the popularization of social media, which, in recent years, has made it the most popular public forum. It is not only a platform that users access, but also a space that they inhabit (Alegria Morán, 2025). They are spaces where citizens inform themselves about politically relevant issues and participate in deliberations that are central to any democracy. Given the preeminent place that these digital environments have acquired in societies, the correct diagnosis of the elements that hinder dialogue and peacebuilding becomes urgent.

From this perspective, it is important for social media users to be aware of how these environments operate, as well as the impact of their actions in these media, so that they take responsibility for their actions, as these, to a greater or lesser extent, contribute to creating peaceful or violent environments in these spaces. For this reason, it is important to develop specific theories of peace education that consider social media spaces. This article presents a conceptual diagnosis of these issues with the ultimate goal of contributing to peacebuilding.

Directly related to the above, one of the most pressing problems in recent years is the increase in violence on social media (Rojas Diaz & Yepes Londoño, 2023; Morales, 2023 and 2024). Due to the complexity of the digital ecosystem, violence manifests itself in various ways and at different levels, making it difficult to address this problem. Among other elements, the role played by network developers, the algorithms they use, and end users must be taken into account. With this understanding of the situation, the main objective of this work is to understand the phenomenon of violence on social media from the perspective of Johan Galtung's «triangle of violence» proposal, which involves three types of violence:

direct, structural, and cultural. The main proposal of this article is that this characterization offers a suggestive theoretical framework to contribute to the international goal of educating for peace as crucial element of democratic political systems.

To achieve this objective, the paper is organized as follows: the first section presents the methodology used. The second section addresses the main elements of UNESCO's proposals on «education for peace.» The third section develops Galtung's triangle of violence proposal. The fourth section presents an overview of social media and what it means to analyze it from Galtung's theory of violence, which allows us to subsequently develop an analysis of how it can be applied to the phenomenon of social media interactions based on the three types of violence: direct, structural, and cultural. Once the above has been presented, a fifth section of discussion is introduced, pointing out the limits of the proposals and arguing how these considerations can be integrated into UNESCO's recommendations on education for peace. Finally, the conclusions of the analysis are presented.

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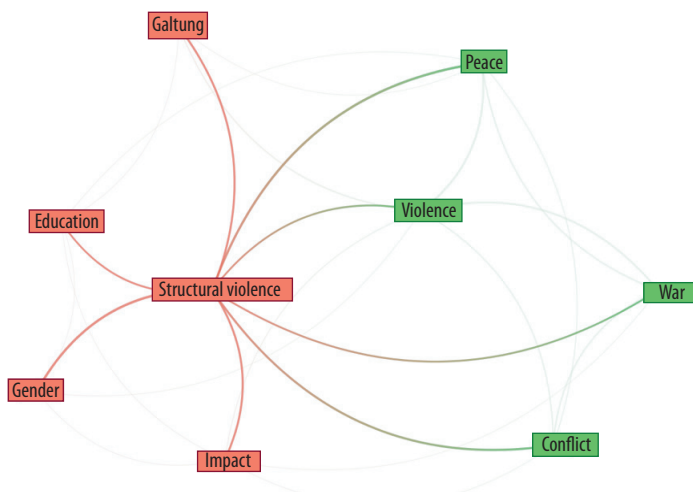


Methodology

This research is theoretical and conceptual in nature, based on the assumption that Galtung's conceptual analysis of the types of violence, applied to social media, it reveals the challenges and opportunities that these environments present for the project of education for peace. To support the argument, a comprehensive analysis has been carried out based on the literature related to the main themes of this study, through a documentary review in indexed databases such as Web of Science and Scopus.

A preliminary search using the keywords «Galtung» and «Violence,» filtered by coincidence in the abstract, yielded a total of 144 documents. UNESCO's recommendations on peace education were also incorporated. To select the specialized literature, an analysis of keyword concurrence was performed using VosViewer *software* (version 1.6.20) on the 144 documents obtained. This identified that the literature on these two topics is linked to the concepts of peace and education through the descriptor of structural violence (Figure 1).

Figure 1
Keyword concurrence in the literature on Galtung and violence



Subsequently, a document search strategy was proposed considering the key concepts of “social networks,” “structural violence,” “cultural violence,” “direct violence,” “Galtung,” “algorithms,” “UNESCO,” “digital communications,” “freedom of expression on social networks,” “digital public sphere,” “democracy and social media.” The search was filtered using Boolean operators (And, Or, Not), combined with relevance criteria. Finally, for the selection of documents, priority was given to primary sources such as UNESCO recommendations, descriptive studies on social media and its functioning, as well as specialized literature on Galtung.

The document review was carried out using the analytical-synthetic method, whose characteristics allow the constituent parts of a problem to be established, its information to be analyzed, and broken down to establish new conceptualizations (Rodríguez & Pérez, 2017). In this case, UNESCO and Galtung’s proposals for peace education were analyzed, the violence triangle proposal was characterized, and an understanding of the three types of violence in Galtung’s proposal in the social sciences was established. Finally, some reflections are presented on how these conceptual elements could be included in proposals for peace education in the social sciences.

UNESCO and peace education

After the armed conflicts of the first half of the 20th century, UNESCO sought to direct efforts towards a culture of violence prevention, prioritizing peace education. In principle, the proposal constituted an effort to direct countries' educational programs towards the prevention of international conflicts by strengthening a culture of peace and cooperation among nations. In this regard, an analysis by Lerch and Buckner (2018) of UNESCO publications showed that this trend continued until at least 1990.

However, from 1990 onwards, a change in the way the concept of peace was presented was observed (Lerch & Buckner, 2018). While in previous documents it was associated with the prevention of international conflicts, in later documents it was related to issues associated with conflict, generally within a local framework such as acts of terrorism or specific situations of violence (Pineda *et al.*, 2019). Thus, a paradigm shift is evident: from international issues to more specific issues such as human rights or specific social conditions in different parts of the world.

In this context, UNESCO presented a series of documents focused on peace education, as well as on the challenges generated by digital technologies, which address the specific problems of freedom, globalization, governance, and international cooperation, as well as issues related to education on artificial intelligence (AI) and AI ethics (Labrador, 2013; UNESCO, 2022, 2023, and 2024). In this way, peace education can be understood as an international effort to harmonize and consolidate different ways of seeing, understanding, and experiencing the world from a comprehensive and globalized perspective (Labrador, 2013).

In summary, the contemporary approach to peace education focuses on local problems from the perspective of conflict with the aim of promoting international cooperation in a globalized context. Within this context, social media appears as an important element of social cohesion that increasingly determines how people understand the world, inhabit it, and even make political decisions. For this reason, this proposal considers it essential to include issues of violence and peace in social media as an integral part of peace education proposals.

It should be noted that, as one of the vehicles for generating this cohesion among the various international actors, UNESCO has issued various recommendations that integrate the guiding principles of peace education. The following aspects of the 2024 recommendation are noteworthy:



- A new understanding of peace, which defines it as «positive, participatory, and dynamic process that nourishes our capacity to value human dignity and care for ourselves, others, and the planet we share» (UNESCO, 2024). This point highlights the importance of self-care and, according to the proposal presented, collective care in social relations can be included in this category.
- Education for sustainable development, where education for peace is aligned with an understanding and knowledge of current environmental issues and action plans for their prevention and mitigation (UNESCO, 2024).
- Education for global citizenship, which contemplates the integration of diversity of opinions based on the teaching of current and past events on the impact of conflicts, as well as the exploration of economic, social, and political links within the framework of empathy and respect for cultural diversity (UNESCO, 2024). At this point, it is important to emphasize the importance of considering social media as spaces where «global citizenship» occurs, so that empathy and respect in social media become a fundamental element in this new proposal for education for peace.
- Gender equality and education, where the need to promote gender equality is conceived as part of the right of access to education, considering the difficulties women face in accessing this right (UNESCO, 2024). As in the previous point, it is necessary to emphasize the importance of including these considerations in interactions on social media.
- Education in the digital age, which highlights the challenges of misinformation and hate speech in digital media. This section addresses the need for both learners and educators to acquire skills, emphasizing critical thinking, empathy, and understanding of privacy, ethics, and digital security (UNESCO, 2024). This point explicitly states the importance of education for peace in digital media, but as will be shown below, an in-depth analysis of what this education means is needed.

Thus, for the purposes of this study, the focus is limited to aspects associated with education in the digital age, an area for which UNESCO has issued a series of guidelines for the governance of digital platforms. These guidelines cover various aspects of these platforms, including the responsibility of actors related to such platforms, such as service provi-

ders or state regulations. In addition, guiding principles such as transparency, accountability, and cultural diversity are included (UNESCO, 2024). In particular, the issue of violence, which will be addressed below, is directly linked to the risks considered by UNESCO, specifically those associated with disinformation, hate speech, conspiracy theories, and the protection of activists, journalists, or marginalized groups in the social environment (UNESCO, 2024).

For its part, in its recommendation on the ethics of AI, UNESCO (2022) addressed some issues related to our subject of study, including the relationship between AI and its impact on disinformation and the proliferation of hate speech. Along the same lines, the recommendation addresses the possibility of increased polarization and stigmatization of vulnerable groups on social media. Considering the above, UNESCO emphasized the need to manage the development of AI from the perspective of a regulatory framework in terms of human rights, data protection, transparency, and accountability of the actors involved in its development.

On the other hand, the International Panel on the Information Environment (IPIE) has conducted several studies in recent years that show that interactions on social media and the use of AI present interesting opportunities to promote peace, but also multiple challenges that hinder this work (IPIE, 2023 and 2025). In particular, they point out that education on these issues should include both a basic understanding of how AI networks and tools work, but also education in ethical, political, and social terms. In this sense, this article proposes a theoretical framework that can help promote the mention and discussion of all these issues in educational contexts.

Given the close relationship between addressing conflict as part of promoting peace education and the potential impacts of the development of digital technologies in this area, it is considered relevant to integrate a characterization of violence, its types, and how it relates to social media and, consequently, to peace education. The framework of violence is addressed below.

Johan Galtung's proposal of the triangle of violence

Johan Galtung devoted most of his academic work to developing a proposal for peace education. It is currently considered one of the different approaches of the peace education movement (García Raga *et al.*, 2019; Labrador, 2013) and one of his main contributions is a theory to charac-



terize violence and to educate for peace in a proactive way, but also in a retributive way, i.e., trying to mitigate the damage when it has already been done (Galtung, 1998). His proposal establishes the existence of a triangle of violence, an expression that refers to three different types of violence that jeopardize the possibility of building and maintaining peaceful societies (Galtung, 1998).

The author defines violence as «avoidable affronts to basic human needs, and more globally against life, which lower the actual level of satisfaction of needs below what is potentially possible. Threats of violence are also violence» (Galtung, 2003, p. 9). Since violence refers to *avoidable affronts*, it is possible to educate people to avoid them, so that, in opposition to what might be called *a culture of violence*, a *culture of peace* should be promoted through education.

Violence arises when it is not possible to fulfill any of the four basic human needs. According to Galtung (2016), these are: «The needs for survival (denial: death, mortality); needs for well-being (denial: suffering, lack of health); needs for recognition, identity needs (denial: alienation); and the need for freedom (denial: repression)» (p. 150). Galtung then adds another need related to ecological balance, understood as the «maintenance of the environmental system» (p. 151). Only when these five factors are met at a minimum satisfactory level can peace be achieved.

In relation to violence, the proposal consists of three types of violence: direct, structural, and cultural. The following sections present an analysis of the three types of violence:

- *Direct violence (DV)*: «It can be physical, verbal, or psychological carried out by one or more individuals to harm or injure another person or people, material possessions, or nature. Due to its manifestation, this form of violence is more visible and easier to identify» (Salinas Arias, 2023, para. 3). This type of violence is usually the easiest to identify and is often considered to be most clearly «punishable» in various justice systems. However, despite being the easiest to recognize, it is also important to understand its relationship with other types of violence, as it is the interrelationships between the three types that give rise to the complex problems of violence faced by our societies.
- *Structural violence (SV)*: «It is embedded in the different structures of social, political, and economic systems, so it can be present in institutions such as schools, the health system, business organizations, etc. This violence has exploitation as its

main harm, because it generates an unequal exchange in the interaction with the structure or institution» (Salinas Arias, 2023, para. 4). This type of violence can be more difficult to recognize because, as it depends on institutions, it may not be clear who is the perpetrator of the violence and who are its victims. It can be difficult both to recognize and to combat.

- *Cultural violence (CV)*: consists of «those aspects of culture, the symbolic realm of our existence (materialized in religion and ideology, language and art, empirical sciences and formal sciences—logic, mathematics—), which can be used to justify or legitimize direct or structural violence» (Galtung, 2003, p. 7). This type of violence can also be difficult to recognize, as it requires the development of adequate critical thinking to be able to detect how ideas can be linked to direct violent acts and to the justification that people may offer to explain their actions. In this area, education plays a fundamental role in addressing this type of violence.

As Salinas Arias (2023) points out, while Vd is an event and Ve is a process, Vc is a constant that allows for transformations in culture. Vc can take various forms in the media, art, religion, science, and all other forms of culture, in which victims are sometimes blamed for the violence they suffer. As mentioned above, violence arises when the minimum requirements for meeting basic needs are not met. The first two general divisions of violence, related to basic needs, produce the eight subtypes of violence (Table 1).

Table 1
A typology of violence

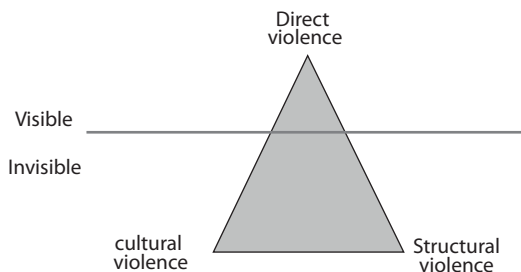
	Survival needs	Needs Well-being needs	Identity needs	Need for freedom
Direct violence	Death	Mutilations Harassment Sanctions Poverty	De-socialization Resocialization Second-class citizenship	Repression, detention, expulsion
Structural violence	Exploitation A	Exploitation B	Indoctrination Ostracism	Alienation Disintegration

Source: taken from Galtung, 2016, p. 150.

However, for the purposes of this paper, it is important to mention that in cases of structural violence, exploitation A and B refer, above all, to cases in which social structures cause those who are disadvantaged to lack of access to services or care, which can lead them to the extreme of losing their lives in very precarious conditions (exploitation A) or to living in permanent states of misery, which may include malnutrition or serious illnesses (exploitation B). As will be seen below, when analyzing the case of digital social networks, virtually all of the types of violence listed here can appear to a greater or lesser extent.

Galtung (1998) proposes that the relationship between the three types of violence can be understood using the image of a triangle, in which the top point represents Vd, and the two ends of the base represent the other types of violence: Ve and Vc. In addition, approximately halfway up the triangle, Galtung proposes a division between *the visible* part at the top of the triangle and *the invisible* part below (Figure 2).

Figure 2
Triangle of violence



Source: adapted from Galtung, 1998, p. 15.

With this image, Galtung proposes that the most clearly perceived violence is direct violence; however, cultural and structural violence also play an important role by supporting or justifying direct violence.

Violence can occur in three time periods, so we can talk about moments or life cycles of a conflict: before, during, and after. When it is not possible to avoid violence in the first two time periods, the 3 Rs can be followed to end the conflict and build peace. The 3 Rs refer to:

- Rebuilding the culture and structure of society.
- Reconciliation between victims and perpetrators, and eventually the whole of society.

- Peaceful resolution of outstanding conflicts. This final stage should be approached in a nonviolent manner, with creativity and empathy (Galtung, 1998).

The many faces of violence in the social sciences.

This section presents an analysis of the types of violence in the context of the social sciences. This analysis will lead to the conceptual discussion that follows in the next section.

What are social networks?

They are spaces on the internet where people can interact with other people and institutions. They are Web 2.0 digital platforms that allow users to participate in content creation. In other words, people not only passively receive information, but also create and disseminate it. Possible interactions include sharing content such as photographs, images, and words; viewing content that other people present publicly; expressing different types of «emotional reactions» to others' posts; and engaging in synchronous or asynchronous dialogue with other people within the network (Tutt, 2014).

Some features of interactions on social media have to do with the environment of coexistence, the interface, the formats, and the ways in which the algorithm mediates interactions (Oremus *et al.*, 2021). Interactions on social media, unlike those that occur in analog environments, do not require simultaneous physical presence for the interaction to take place. This leads to the possibility of interacting with people and communities from different states, countries, and regions. While in analog environments the body is our interface (although it is not a simple interface, but something constitutive of our being), in digital environments we do not have the restrictions of the body or the affective and cognitive possibilities that it opens up (Vallor, 2015). In digital environments, it is possible to show parts or representations of the body, but it is not the medium through which one enters the environment and is not always a constituent of the identity formed in such environments.

These differences in the ways and conditions for interacting in one space or another open up different possibilities for facilitating violent interactions or others that allow for the construction of peace. While in an analog environment violent interaction involves the use of the body, either through physical violence or presence, in a digital environment



violence can be exercised without being recognized and without the possibility of a physical response. Similarly, violent interactions on social media can expand beyond the circle of acquaintances and even beyond physical borders.

At the same time, social media is still embedded in specific social contexts, and in many cases, the people with whom we interact in the digital sphere are also frequented in physical environments. Similarly, much of the discussion that takes place on social media corresponds to a particular social reality that is shared beyond the digital realm (such as political discussions). For these reasons, digital social media is considered an “extension” of non-digital social media (Vallor, 2015). In this article, the focus is on the particularities of digital social media.

Among the most widely used social media platforms today are Facebook, WhatsApp, X (Twitter), Instagram, and TikTok (Castro Higuera *et al.*, 2024). Although social media has been around for a relatively short time in our social environments (Boyd & Ellison, 2007), some studies have made significant advances in understanding this phenomenon, how these networks are designed, and how people interact on them (Castro Higuera *et al.*, 2024).

Social media has already played an important role in certain significant political events such as the Arab Spring (Wolfsfeld *et al.*, 2013), the 2016 US presidential election, and Brexit in the United Kingdom, the latter two related to the Cambridge Analytica case (Rehman, 2019). Both events have had significant global repercussions and are just one example of how social media actually contributes to changing our environment in that it can generate *cultures of violence* or *cultures of peace*. This can be observed on a large scale, as in the cases just mentioned, but also on a smaller scale, such as in the interactions of smaller groups of people within these networks. Given these considerations, the main proposal of this article is that it is possible to present social media from the frameworks of violence proposed by Galtung. The following section will be dedicated to showing this relationship.

Social media from the perspective of Galtung’s frameworks of violence

As noted in the first section, violence emerges when the minimum conditions for meeting basic needs are not met. At first glance, it might seem that social media is not linked to basic needs, but when it presents itself as a place where people can work, on the one hand, and interact, on the other,

the conditions are set for environments of violence to be generated from these digital spaces. For example, according to the IPIE report (2025), based on a survey of researchers from 76 countries, it was found that:

- 34% of participants admit to having self-censored on social media due to concerns related to their professional development. Furthermore, in the case of developing countries, the likelihood of self-censorship increases to 40%.
- 23% of participants fear losing their research funding, reporting situations of harassment such as the leaking of personal information due to their work.
- 73% report inhibiting situations such as self-censorship, harassment, political intervention, or fear of losing funding (IPIE, 2025).

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As can be seen, violence and the threat of direct violence in digital environments translates, in this case, into fear of losing research funding and fear of losing jobs. On the other hand, this report also refers to the case of journalists, who generally face very high risks in exercising their profession.

According to the analysis presented here, dynamics of direct violence can be identified in social media, but also a structure for violence and factors that contribute to cultural violence, more generally, inside and outside these spaces.

Direct violence in social media

Direct violence refers to actions carried out specifically with the intention of harming or injuring other people. Although this type of violence has a very clear physical component (although it is not the only component, as this type of violence also includes verbal and psychological harm), it is possible to find an equivalent within the context of social media.

Here, we propose to understand direct violence on social media as actions carried out there that involve:

- Sharing verbal expressions that seek to offend or insult other people.
- Sharing information about other people without their consent.
- Generating and disseminating false data, such as photographs, videos, or audio recordings, based on other people's information.
- Making false statements about other people on different platforms, including actions such as incorrectly reporting other pages.

- Actions in *offline* environments that are related to *online* actions and that violate people's freedom or basic rights.

In some of these actions, the violent component is very clear and similar to how this type of violence is usually understood in non-virtual contexts, such as in the first and last cases listed, for example. However, there are some cases of this type of violence that may not be obvious. For example, based on the definition given so far, sharing information would include harmless acts such as sharing a photograph with family or friends without first asking their permission.

At first glance, this may not seem to be a case of violence, but considering that data uploaded to social media acquires a public reach that is difficult for those who generated it to control, in addition to blurring the boundaries between the private and the public, it is possible that the data could be used in harmful activities by third parties.

Considering the above, it is important to reflect on the very definition of direct violence, specifically, what concrete actions could be considered part of it or not. Furthermore, in the context of peace education addressed in this article, it is necessary to reflect on how to contribute to raising awareness about the importance of each person's actions on social media and to encourage reflection on these actions, considering their possible consequences.

On the other hand, the label of direct violence can include some other aspects of the different manifestations of violence on social media that have been analyzed by other researchers. For example, Mary Jackman (2002) defines violence in a very similar way to Galtung, and although she does not specifically refer to social media, she emphasizes the importance of the different elements that make up the social environment that generates violence, and not only the role of the perpetrator or the victim.

With regard to research on *online* violence, there is also some research on violence in digital environments that could be included in this category. For example, Polyzoidou (2024) discusses whether it is necessary to create a specific category of digital violence against women, and as a framework for the discussion, she presents an interesting analysis of the differences between *offline* violence and *online* violence, which in both cases can be considered direct violence.

As Polyzoidou (2024) points out, this type of violence is determined by the specific characteristics of computer technology and the internet, which allow, for example, unlimited access to a virtually infinite flow of information from anywhere in the world and a certain degree of



anonymity for the perpetrators of violence, who can also generate content to be shared on social media. This type of violence is also what is being attempted to be stopped with clearer rules within the platforms and in legal and judicial terms, as exemplified by the Guidelines for the Governance of Virtual Platforms (UNESCO, 2023).

Other interesting approaches to phenomena related to direct violence on social media can be found in Teo (2024), who presents an analysis of how digital environments create what is called «slow violence» against human rights, and Schultz *et al.* (2025), who propose the term «algorithmic dehumanization» to refer to different processes related to the general digitization that is taking place in society and causing damage on different scales, some as basic as, once again, human rights.

Although several of the elements presented by these authors can also be considered in the type of structural violence that will be discussed in the following section, many of the specific facts discussed by these authors fall into the category of direct violence.

Structural violence in social media

Structural violence has to do with the conditions that allow aggressive acts to develop (Galtung, 1964). Unlike other environments, social media has very obvious structures that determine and shape what can be expressed and the forms of expression. This structure is the algorithm. Beyond the structures inherent in different social contexts—which are less obvious—the algorithm imposes a fairly defined structure on what can and cannot be shared and on the forms of interaction between people (Tutt, 2014). In this sense, to identify the elements that allow violence to develop in social media, we must look at the algorithms.

By algorithm, Floridi (2023) means the implementation of mathematically organized structures capable of ordering data to achieve a specific task or result. In the case of social media, algorithms structure the presentation of information, rules of conduct, metrics for promoting and hiding content, controls on misinformation, and all the specific features that make social media spaces for sharing information and expressing ideas or emotions (Oremus *et al.*, 2021).

While a technical analysis could be made of the mathematical structures on which social media algorithms operate, this article focuses on the results produced by such structures. That is, on the ways in which the algorithm shapes interactions and content on social media. Thus, for the present analysis of the development of violence in these spaces, the



structure is conceived in two ways: as the conditions that foster it and as the medium in which it occurs.

Conceiving the algorithm as a medium, following Morales (2024), allows us to situate the current discussion within the coordinates of *media studies*, from which we explore the ways in which communication technologies, in this case social media, shape human relationships. First, media studies suggest that interactions are never completely direct, as there is always a medium, whether it be language or the technology on which language is used (Morales, 2024). This is why analyzing the medium is so important, especially when it comes to a medium such as an algorithm, which not only serves as a format but also conditions the possible forms of expression and interaction.

The ways in which social media has become a new medium for the expression and development of various acts of violence are most evident in contexts of armed violence (Morales, 2024). This allows us to visualize how social media has become another platform for violence. However, when studying structural violence in social media, what is interesting to analyze is not the violence that comes out of social media, but how the algorithm, by shaping interactions and determining content, gives rise to violent expressions within these digital spaces.

The algorithm as a medium is not a simple vehicle, but rather limits and determines the scope and forms of expression. In this sense, it sets all the conditions for expression, but also the rules that determine how that expression will or will not be disseminated. To illustrate the scope of the algorithm as a space of possibilities, we must consider the effects of algorithms on the most popular social media platforms. The case of Facebook, according to Lima-Strong (2021), is particularly illustrative and significant because of the number of users and the opacity with which they sought to manage their algorithm until a few years ago.

In 2021, the Facebook Papers were leaked, a set of internal company documents that served to expose how both the structure of the algorithm and some specific decisions by Mark Zuckerberg (owner of Facebook, Instagram, and WhatsApp) have allowed the platform to play a role in a series of global political conflicts (Lima-Strong, 2021). The *papers* revealed that, since 2018, the platform's algorithm has presented two crucial aspects to users: highly personalized content and posts that strategically encourage interaction (Oremus *et al.*, 2021). Some of the strategies to encourage interaction include showing posts from close contacts, viral memes, and divisive content, i.e., expressions on which users would take a strong stance and reject the opposite.



In this regard, authors such as Lima-Strong (2021), Oremus *et al.* (2021), and Tutt (2014) argue that the algorithm seeks to promote radical positions, polarizing expressions, and discussions on sensitive issues. The aim is to promote content that seeks to provoke strong emotions and thus capture users' attention. Information that elicits positive feelings is shared more than information that causes slightly negative emotions. However, information that is overly negative—the most concerning—is shared the most. In particular, articles, videos, memes, or comments that generate surprise, amusement, or anxiety are shared.

At this first level, social media algorithms such as Facebook encourage violent expressions to the extent that, in order to capture users' attention—a key element of their business model—they will sometimes seek to arouse concern and rejection (Tutt, 2014). These emotions, combined with other elements of the algorithm that allow affinity groups to form to the point of creating echo chambers, shape sides with affections and, sometimes, enemies (Habermas, 2023). Then, the encounter between sides can lead to expressions of direct violence.

Returning to Galtung's typology (2016), it could be said that simply capturing attention in this way already lays the groundwork for violent acts insofar as it can interfere with the satisfaction of our needs. The simple fact that algorithms serve, according to Véliz (2021) and Coeckelbergh (2024), as devices to capture people's attention and the possibility of deciding where to direct it can constitute forms of manipulation which, following the present analysis of types of structural violence, in turn lead to indoctrination, ostracism, alienation, and disintegration (Table 1; Galtung, 2016).

But the impact of the algorithm as a facilitator of violence is broader. Content moderation, ranging from the selection of posts that would cause more interactions to the censorship of other posts, can lead both to the dissemination of violent expressions in certain spaces and to the hiding of relevant content, thus silencing underrepresented voices or slogans (Vallor, 2015; Morales, 2024). These expressions hidden by the algorithm can be of many types, including calls for peace by groups under attack.

For example, users have noticed that Facebook's algorithm often classifies certain artistic expressions as pornography or some types of political discourse as harassment or intimidation (Tutt, 2014). In addition, a report by Human Rights Watch showed that Meta's algorithms (on Facebook and Instagram) censor accounts and posts that support the Palestinian cause or denounce the actions of the Israeli government (Human Rights Watch, 2023).



The partial moderation of violent content, i.e., the possibility of overexposing certain expressions of violence and hiding others that are presented in the form of denunciation, can have a significant impact on how people conceive violence, their sensitivity to condemning it, or the invitation to replicate it (Morales, 2024). In this sense, the algorithm becomes another arm of structural violence outside social media and, in turn, constitutes the internal structure for violence within these spaces.

Finally, the algorithm achieves all this by capturing sensitive private data which, although users grant access to, they do so without full knowledge of the purposes and consequences this may entail, which could constitute violations of privacy (Véliz, 2021). The business model of these platforms is to sell their users' data, which could be considered a type of exploitation that again refers to Galtung's typology of structural violence (Table 1; Véliz, 2021). In turn, to the extent that private data is used to manipulate users, it constitutes a violation of individual and political freedoms (Véliz, 2021; Coeckelbergh, 2024).

Cultural violence and social media

As noted above, CV is related to cultural aspects that is part of the symbolic realm. In relation to social media, this exercise of violence can take different forms. However, a recent phenomenon has had a growing impact on the symbolic resources that legitimize other types of violence and that also find their main manifestation in social media, namely *fake news*.

Fake news as a subject of study and its relationship with social media has been addressed in multiple studies (McIntyre, 2018; Del Fresno García, 2019; Wu *et al.*, 2019; García Marín, 2020), where it is defined as information that is deliberately manipulated and presented in the form of news (Sanz Blasco and Carro de Francisco, 2019; Guallar *et al.*, 2020), with the aim of obtaining some economic or ideological benefit; and, generally, the topics are related to controversial issues such as climate change, gender, the economy, and electoral contests (Guallar *et al.*, 2020).

Fake news is also deeply related to a phenomenon known as post-truth, in which a distorted representation of the criteria of truth in facts has developed and, in the worst cases, facilitates a scenario of radical skepticism regarding institutions such as scientific ones (McIntyre, 2018; Aparici & García Marín, 2019; Solis, 2024).

Post-truth is a phenomenon in which evidence is less valuable than opinions when it comes to establishing beliefs, which favors the proliferation of dogmatic, strongly ideologized entities that can have negative

impacts on public life, including anti-vaccine communities and climate change deniers (McIntyre, 2018).

In relation to the above, social media, as a technology of the digital age, has worsened the problem because it allows the creation of channels where information spreads rapidly (González, 2019). Furthermore, due to its structure, it encourages the creation of echo chambers that ultimately reinforce people's beliefs in post-truth situations, showing content in line with their beliefs even when this content is false.

For example, during the 2016 US elections, the usefulness of *fake news* in shaping the beliefs of potential voters became evident, as it was shown to specific audiences according to their preferences and other population segments using *big data* algorithms. This case became known as the Cambridge Analytica scandal.

Now, the relationship between these phenomena, from the perspective of cultural violence, is the following. First, there is the ability to shape public opinion through metadata analysis, as well as to exploit the susceptibilities of individuals or groups in post-truth circumstances and/or to manipulate information with *fake news*. All of these are examples of the use of technologies for private gain, to the detriment and through coercion of the public who use these technologies.

Second, the manifestation of these phenomena deals a heavy blow to the citizens of democratic states, as one of the consequences of post-truth is that the exercise of democracy is compromised due to the manipulation of information for political and ideological purposes (McIntyre, 2018; Rubio, 2018).

Thirdly, the manipulation of information on social media also affects the formation of identities, judgments, and opinions on generally disputed issues; and to the extent that information, in its different discursive dimensions, is distributed on social media, it encourages different justifications for all kinds of discourse, including hate speech or discourse with potential harm to public health.

However, it is important to note that, at the same time, social media can be a tool for minimizing the effects of misinformation when it is used ethically within the limits of critical thinking. Some alternatives to the coercive power of social media lie in source-based journalistic practices, such as *fact checking*, which promise to be an alternative to mitigate the role that misinformation plays in justifying untruthful discourse (Shin, 2023).

Finally, the seriousness of the problem requires the development of strategies on multiple areas (technological, scientific, social, educational, etc.) that promote the responsible use of social media, both to mitigate its



harmful use (for example, in the modeling of beliefs for malicious purposes) and to encourage its use toward the construction of better-communicated and more developed societies, both to mitigate its harmful use (for example, in the modeling of beliefs for malicious purposes) and to encourage its use aimed at building better-communicated and developed societies within an adequate culture of peace.

Discussion

This section will present some of the limitations identified when applying Galtung's theoretical framework for the analysis of violence in social media. Based on the discussion focused on each type of violence, a series of general proposals for the construction of peace education in digital social environments will be put forward. The aim is to problematize the proposal, delimit its scope, and glimpse its horizons. However, this analysis does not aim to formalize a strategy for peace education, but only to present a series of guidelines that point in that direction.

Galtung's characterization of violence allows us to point out the ways in which social media algorithms promote violence beyond these platforms, but also within them. First, it is considered very valuable to be able to pinpoint the reasons why a series of seemingly innocuous characteristics of their algorithms and dynamics can become harmful to individuals and entire societies. In this sense, it is necessary to point out the ways in which social media contributes to the development of violence, its visibility and invisibility—sometimes disproportionate—and its execution.

Given the state of violence on social media described in the previous section, peace education measures would have to be considered from a framework of post-violence peacebuilding (Galtung, 1998; UNESCO, 2023). Under this assumption, the two proposals for peace education presented in this article are discussed. It should be noted that the purpose of this research is not to compare the two proposals, but to use them in the discussion on how to address the problem of violence in the SSR.

Galtung's (1998) framework can be summarized in the three Rs mentioned above: rebuilding culture and social structure; reconciliation between victims and perpetrators; and peaceful resolution of outstanding conflicts. On the other hand, UNESCO's recommendations (2023) illustrate a series of necessary aspects on the path to peace education. These are: understanding peacebuilding as a participatory process; thinking from the coordinates of sustainable development, cosmopolitanism, and

gender education; and promoting digital literacy based on ethics and critical thinking.

In this sense, the set of proposals can be satisfactorily integrated. Following this analysis, peacebuilding in social media would have to address Galtung's (1998) first R: the reconstruction of social and cultural structures, with the understanding that this must be achieved through a participatory, inclusive process that is aware of its global dimensions (in line with UNESCO, 2023). As seen, algorithms segment the population, promoting alienation, polarization, and division (factors that fuel violence). It is therefore necessary to promote the use of these digital spaces in a way that is conscious of these dynamics so that users avoid falling into strategies that break them away from others.

It is important to mention that Galtung's framework was not originally designed to analyze digital environments, so it has some limitations, including the difficulty of identifying new forms of direct violence or new dynamics for violence. In this sense, a specific approach is required to adapt it to the analysis of digital social media. This proposal is aimed at that objective.

To address the structural causes of violence, social media providers would have to modify their algorithms to promote peaceful dialogue and thus lead us toward peaceful conflict resolution. In addition to addressing the problem of resolution, digital environments would have to be created to avoid potential conflict. If divisive content favors social media companies because it captures people's attention better, then the business model needs to be reconsidered more broadly. Users, for their part, must pursue constructive dialogue and avoid falling into aggressive, divisive arguments.

Measures to prevent violent interactions on social media (those that constitute acts of direct violence) are similar to those that would need to be taken in non-digital environments. However, the fact that digital environments offer new ways to inflict violence on others requires greater emphasis on self-awareness about how our expressions or shared content could harm others. For example, Wyrer and Black (2023) show how gender-based violence can be present in third-generation *chatbot* models and also offer an analysis of the various implications caused by this type of violence. Like this, there are multiple cases of digital violence, which is almost universal. Consequently, it is essential to promote digital literacy focused on empathy and critical thinking, as suggested by UNESCO, specifying that it starts from a structure and context that favors violence.

With regard to direct violence, it is important for all social media users to reflect on the implications of their actions in digital environ-



ments, however small or simple they may seem (for example, reacting emotionally to a post or sharing content without verifying the sources). In addition, it would be important to discuss and reflect as a community on each of the points presented at the beginning of this document, because, as noted above, there are actions that, without reflection, may not seem to be related to direct violence, even though they may be.

Regarding this type of violence, Galtung's theoretical framework is limited in some respects, as he did not consider digital environments as possible generators of violence. Consequently, it would be important to conduct a more detailed analysis of how direct violence in social media should be understood, considering its particularities in relation to the digital environment.

As for structural violence, Galtung's proposal allows us to point out at least two factors that are worth highlighting. First, the possibility of labeling as violent the way algorithms work, with their goal of capturing attention to manipulate their users. It is important to note that, as we lose control over what we want to know, consume, and share, we are not only passive subjects of manipulation, but we also suffer a form of violence that can lead to indoctrination, alienation, and social disintegration.

Likewise, cultural violence, in which the victim is blamed as a means of legitimizing the perpetrator, plays an important role in indoctrination and becomes a vehicle for alienation and the disintegration of social cohesion. Based on the impact of algorithms, these are not only manifested from a structural perspective, but the use of *bots* to generate artificial disputes on polarized issues is an example of how structural and cultural violence are integrated, i.e. the algorithm allows for the segmentation of communities based on ideological differences on highly polarized issues. Thus, these types of violence undermine the needs for identity and freedom, respectively.

Along the same lines, the social media business model that profits from its users' private data undermines the needs for survival and well-being according to Galtung's theoretical framework. This is because data theft constitutes a form of exploitation in which users are forced to provide their private data for the benefit (economic, but also power) of social media owners at the expense of their own freedom and security (Véliz, 2021). With this data, users can be incriminated, extorted, and manipulated in ways that can threaten not only their mental well-being, but also their physical and material well-being (Coeckelbergh, 2024).

This helps us understand why UNESCO has a specific recommendation on the protection of sensitive data and its responsible use in the

creation and development of both digital platforms and AI. Specifically, the manipulation of data extracted from social media has created an environment in which the three types of violence described above converge.

Another example that illustrates the manifestations of violence across its different dimensions is the case of *fake news*, which can be used to damage a person's public image (direct violence) or to manipulate information on highly polarized issues (cultural violence), all by taking advantage of the benefits that social media algorithms give to content with high data traffic (structural violence).

In this way, Galtung's proposal allows us to point out more precisely the ways in which the very structure of social media exercises and allows the exercise of violent acts against its users. Based on this diagnosis, the scientific community is urged to think about strategies for building education for peace in and through social media. For this purpose, two different levels of responsibility can be considered: that of those who own, create, and sustain social media, and that of users.

The first group of responsible actors would have to follow not only UNESCO's recommendations, but also those derived from the analysis of forms of violence in social media. Following this line of argument, their current business model is illegitimate because it is violent, particularly in the ways it captures users' attention and profits from their personal data. This implies that the proposed changes would create digital discussion environments that are completely different from those that have become popular until now.

As long as the first group of responsible parties continues to do business using violence, users have the responsibility to protect each other's data as much as possible. In addition, educational efforts should be made to inform other users about the ways in which social media algorithms promote these forms of violence. An example of how this could reduce violent interactions would be to identify how the algorithm seeks to generate hostility between groups and individuals, inform all those involved, and promote the creation of digital environments where reconciliation and peaceful conflict resolution are sought, as proposed by Galtung.

Conclusions

This article has taken a journey that began with the need to consider actions on social media as actions with relevant ethical and political implications. Just as in non-digital environments, violence or peace emerge on



social media according to a complex web of factors that favor the emergence of one or the other.

The importance that social media has acquired in recent years as a public forum makes it essential to research the dynamics that occur within it in order to propose policies, in this case educational ones, that contribute to making social media spaces where violence is avoided and peace is understood as a goal to be achieved in interactions on these platforms. However, social media has particular characteristics related to its digital nature, which calls for the creation of theoretical frameworks that adequately capture the different relationships and interrelationships that exist between its designers, users, and the infrastructure necessary to sustain it. This article has argued that Galtung's proposal for peace education, which begins by proposing three types of violence—direct, structural, and cultural—and then builds peace as a way of overcoming them, is a proposal that can contribute to a better understanding of how violence is presented in social media and, therefore, can also help to provide guidelines for proposing peace education as a solution to the types of violence analyzed.

An in-depth analysis of what is happening on social media is currently necessary, as it is in these spaces where public discussion predominantly takes place today. Our work shows how violence can occur in three ways, as proposed by Galtung: in some interactions that occur on social media, it also shapes the very structure of these platforms and thus contributes to the formation of a violent culture. With this analysis, it is possible to show that violence has become a structuring condition of current public discussion on social media.

From this perspective, the value of this work lies in the diagnosis and problematization of the theory of violence (under Galtung's theoretical framework) as a tool to adequately identify the obstacles we face on the path to peace education. As part of the effort to move toward this goal, we suggest revisiting UNESCO's recommendations on peace education in the area of digital education. The approach to these new forms of violence is presented as a challenge and an opportunity to generate digital literacy programs that include the recognition of these forms of violence, as well as strategies for their prevention and eradication.

Finally, while this article provides an approach to the problem of violence on social media, further research is also needed to expand Galtung's theoretical framework to cover other particularities of digital environments. It is also recommended that the categories described here be considered for future analyses of the phenomenon from both empirical and theoretical perspectives.

The greatest value of an analysis and discussion such as this one lies in the fact that it contravenes the popular way of conceiving and experiencing forms of interaction in digital environments. Hence, it has been emphasized that the analysis of violence on social media should not be limited to considering direct violent attacks between users, but should also consider the types of violence that emerge from the algorithmic structures of social media and the culture that is generated within them. It is important to properly consider these three types of violence in order to propose an education for peace that avoids confrontations between users, understands how the algorithmic structure of networks works, and is able to contain and limit it with the specific aim of preventing violence. This will contribute to creating a better integrated, better informed, more inclusive, and more understanding culture of difference. To the extent that these conditions are necessary for building peace, this article offers new ways of conceiving, identifying, and exposing the forms of violence that interfere with this goal.

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SECONDARY SCHOOL STUDENTS' PERCEPTIONS OF SINCERE FRIENDSHIP ON THE INTERNET

Percepciones del alumnado de secundaria acerca de la amistad sincera en internet

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Abstract

This article explores the perceptions of fourth-year secondary school students regarding the influence of Digital Technologies (ICT) on the development of the social and civic virtue of sincere friendship. For this purpose, a questionnaire including both open and close-ended questions was administered to 131 Spanish secondary students, whose responses were analyzed using AtlasTi 8.4 and SPSS 25. Along with a theoretical framework for understanding the meaning of the virtue under study, an analysis of the students' perceptions of this virtue on the web was conducted, as well as of their views on the contribution of ICT to personal growth and the development of virtues. Among the results, the students tend to perceive themselves as sincere but think this is not generally the case on the web. In addition, for most of them, social media strengthen friendships. However, when asked about the kind or quality of the relationships facilitated by these technologies, their perceptions are not so positive. In conclusion, an explicit focus on virtues when engaging with ICT not only fosters better practice in online environments but also generates a positive perception of the digital context when virtuous behaviors are identified and explored within it. Therefore, we strongly recommend adopting an explicitly virtue-based approach to digital education programs.

Keywords

Communication Technology, Interpersonal Relationships, Moral Education, Secondary Education, Philosophy of Education, Sociology of Education.

Resumen

Este trabajo explora las percepciones de un grupo de estudiantes de cuarto curso de educación secundaria acerca de la influencia de las tecnologías digitales (TIC) en el desarrollo de la virtud social y cívica de la amistad sincera. Para ello se aplicó un cuestionario a 131 jóvenes españoles con preguntas abiertas y cerradas, cuyos resultados se han analizado mediante AtlasTi. 8.4 y SPSS 25. La reflexión acerca de la virtud objeto de estudio como marco teórico se complementa con el análisis de las percepciones de los estudiantes sobre esta virtud en la red, así como sobre la capacidad de las TIC de contribuir tanto a la mejora personal como al desarrollo de virtudes. Como resultados, se observa que los estudiantes tienden a percibirse a sí mismos como sinceros, pero consideran que, en general, esto no ocurre en internet; además, para una amplia mayoría, las redes sociales refuerzan la amistad. No obstante, al preguntar por la cualidad de las relaciones que las TIC facilitan, la percepción no es tan positiva. Se concluye que un enfoque explícito en virtudes al enfrentarse a las TIC no solo fortalece la práctica *online* de estas, sino que genera una percepción positiva del medio digital, cuando en este se detectan y exploran comportamientos virtuosos. Se sugiere, por tanto, adoptar explícitamente este enfoque educativo (*virtue-based*) en los programas de educación digital.

Palabras clave

Tecnologías de la comunicación, relaciones interpersonales, educación moral, educación secundaria, filosofía de la educación, sociología de la educación.

Introduction

Contemporary society has been described in many ways, considering some of its features—knowledge without borders, open communication, unlimited interaction, interdependence—as fundamental to understanding its complexity and making sense of it. Consequently, it has been characterized as a “global society” (McLuhan, 1963) or, as Bell (1980) calls it,

“communicated” (computerized and communicated), of “communicative action” (Habermas, 1988), “network society” (Castells, 2006), and in some cases it is described with more disturbing connotations: “risk society” (Beck, 1997), “society of disappointment” (Lipovetsky, 2008), “society of fatigue” (Han, 2012), or “liquid society” (Bauman, 2015). Many of these descriptions highlight the impact that information and communication technologies (ICT) have on the transformation of society (Haidt, 2024), as they are present in all aspects of the individual and social lives of its members, including in the field of education. The problem lies in the fact that both its possibilities and its risks are part of the digital configuration of the culture of the new generations, also in terms of their integral and moral development, which may be compromised. For today’s students, digital natives, the internet is an unavoidable educational medium. But how does it affect their willingness to live in society and relate to others and, consequently, their social and political character? In light of the results of this study, it will become clear to what extent it is necessary to focus education not so much on the technical possibilities that ICTs open up for learning, but rather on the ethical and moral competencies that these technologies could be promoting or hindering.

The aim of this article is to explore how a group of students in their final year of compulsory education perceive the impact of ICT on one of the social and civic virtues most appreciated in adolescence: sincere friendship. We will tentatively explore whether young people consider that ICTs help to generate quality interrelationships, consisting of openness to sincere dialogue with other individuals, and to generate bonds of friendship between them for their own socialization interests. This will be done through an exploratory descriptive empirical study, based on the analysis of students’ responses to open and closed questions in a questionnaire.

Sincere friendship is a social virtue, although it is also fundamental in the political sphere. According to Berkowitz (2021), social and civic character can be defined as the set of dispositions to think, want, and contribute to the common good of different social groups and political society, and is made up of certain traits, strengths, or virtues that a person can freely develop from their inherited personality. Therefore, social virtues, those required for satisfying and humanizing social relationships, can be extended to the realm of citizenship. The two are not mutually exclusive; rather, some social virtues are essential in the political sphere, such as sincerity. As Shields (2011) mentions, social and civic virtues constitute a positive dimension of character, together with intellectual, performative, and moral virtues, all of which can be promoted through education.

As Espinosa and Plaza de la Hoz (2024) point out, the need for a virtue-based approach in education, also applied to the use and appropriation of ICT (virtue-based digital education approach), is related to the decline of modern pedagogy when it seeks student autonomy from all indoctrination of values, based on a supposed teaching neutrality. However, as Ibáñez Martín (2021) points out, there is a clear need to recover critical thinking in the field of education.

Approaches from both philosophy (character education, personalized education, values education) and psychology (positive psychology, positive youth development) promote attention to the various dimensions of learning (cognitive, volitional, emotional, behavioral), corresponding to the different human dimensions, and their integration into the classical notion of virtue or the more current notion, from the field of psychology, of character strengths, the acquisition that goes beyond a purely cognitivist approach (Kohlberg, 1984).

Virtue education as character education based on Aristotelian virtue ethics has gained new momentum since the last decade of the 20th century, coinciding with the rise of neo-Aristotelianism. Both the theoretical foundation and the practical application of this education in virtues is being carried out globally in response to the need to comprehensively address the educational needs of human beings in order to fulfill the ultimate educational goal, which is to contribute to human flourishing (Kristjánsson, 2019). In the digital society, character education must specifically address the development of virtues in the virtual context. An explicit focus on virtue when dealing with ICTs allows us to understand them as a sphere of action for their practice, as well as generating a perception of the positive value that the digital environment contributes when virtuous behaviors are detected and explored in it.

This text is structured in four main parts. First, a theoretical framework is presented that delves into the meaning of the social and civic virtue under study. Next, the method used for the empirical work is explained. Then, the results obtained after analyzing the responses of a group of 131 students who completed the research instrument are presented. Finally, these are analyzed and discussed to understand their implications.

Theoretical basis

Since ancient times, friendship has been the subject of philosophical theorizing. Plato (2014) connected it with goodness, truth, and beauty,



conceiving it as a higher form of relationship. Aristotle (1985) distinguished several types of friendship, based on pleasure, utility, or virtue; certainly, the latter constituted the highest form of friendship as it was oriented toward mutual moral perfection.

The Middle Ages, especially through St. Augustine (2017) and Thomas Aquinas (2006), gave a new focus to friendship by relating it to Christian *caritas*, participation in divine love and, therefore, a virtue that tends towards transcendent moral good, embodied in evangelical brotherhood and the ideal of community life of the *mandatum novum*.

In modernity, the emphasis is placed on the intimacy, affection, and freedom shared by friends (Montaigne, 2016), affirming the uniqueness and authenticity of the bond of interpersonal friendship. The social and affective aspects of virtue, sympathy, and civil coexistence are features highlighted in the Enlightenment (Hume, 2005). In Romanticism (Schelling, 2015; Novalis, 1985), the centrality of the self, its aesthetic sensitivity, and its emotional intensity are added to the establishment of friendships.

Today, the political and social perspective of friendship (Arendt, 2020) is gaining relevance, as is its importance in the development of free and democratic dialogue, balanced critical judgment, and the construction of shared public space.

Finally, technological society introduces digital forms of relationship that disrupt the practices and values associated with intimacy, sincerity, and reciprocity, all of which are aspects related to friendship.

One of these components (sincerity) is directly related to the truth of things. It implies a willingness to recognize oneself and things as they are. Also called «truthfulness,» it consists of an openness to reality that respects it in its own being, without manipulating it for any interest, showing oneself as one and declaring the reality of things. According to Polo (2016), there are two types of truthfulness: linguistic-communicative and social. Communicative truthfulness, consisting of truthful language, allows for trust, friendship, communication, and coexistence among people. Social truthfulness derives from this, since no community or society is possible without a minimum of sincere cooperation. On the contrary, insincerity has four dimensions: error, lying, silence, and duplicity. According to the same author, lying is the one that most corrupts social life, since the error-falsehood component is combined with the will to deceive, which implies ethical deterioration and degradation of the individual (Selles, 2020).

Internet expands the possibilities for communication and creating freely available content. Web 2.0 allows for two-way communication, so



everyone can contribute to presenting themselves and showing reality digitally. The increase in social relationships and cooperation that this entails goes hand in hand with opportunities to deceive, be deceived, and be misled (Fanjul et al., 2019; Kucharski, 2016; Pérez, 2018). The intention to deceive determines the essence of the digital phenomenon of disinformation, which is distinct from misinformation, even though both refer to false semantic content (Voinea et al., 2020). Paradoxically, the democratization of knowledge has generalized the threat of the dissolution of truth in appearance or feeling, to the point of talking about post-truth (Espinosa, 2019; D'Ancona, 2017; Keyes, 2004); Furthermore, the Internet of Things (Web 3.0) adds a greater degree of expectation and uncertainty (Tascón, 2020).

If the spread of false information on the internet is identified as one of the major global threats of today, along with climate change (Pew Research Center, 2022), it seems appropriate to ask how young people perceive ICTs in relation to sincerity, both in their personal use and in the possibilities they offer for distorting the truth, both their own and that of others.

On the other hand, friendship is a type of interpersonal relationship that contributes to the realization of the dialogical human essence (Buber, 2018). According to Aristotle (1985), of the various kinds of friendship (for utility, for pleasure, and for virtue), only friendship for virtue is perfect. All are based on benevolence, «reciprocal goodwill» (sec. 1155b32-5), although in the imperfect types, this goodwill lasts only as long as the benefit or pleasure obtained from it lasts.

Friendship is a social virtue whereby the individual is capable of wanting the good of the other as if it were his own. It is the middle ground between two erroneous extremes, flattery and harshness, and, like all virtues, it is a disposition that can be developed through practice. Although the usual consideration of the term friendship refers to the realm of private interpersonal relationships, friendship can also be understood in a civic sense (*philia politiké*), consisting of the ability of people to recognize each other as equals, belonging to the same family (Nussbaum, 2014), thus providing a solid basis for civic coexistence.

Wagner (2019) has distinguished various functions that friends can perform to a greater or lesser extent: help, intimacy, stimulating company, trusted alliance, self-validation, and emotional security. According to Aristotle, perfect friendship is based on love for the character of the friend, understood as the set of virtues they possess. It requires shared activities and an understanding of the friend as intrinsically valuable to the point of understanding them «as irreplaceable, not just painfully re-



placeable, as is the case in some evolved forms of utilitarian friendship» (Kristjánsson, 2020a, p. 134).

Given that adolescents make friends and experience their friendships through digital media, it is interesting to investigate whether ICTs contribute to strengthening these relationships in any of the aspects pointed out by Aristotle (pleasure, utility, or virtue) (Healy, 2021) or whether they contribute to intensifying any of the functions of friendship. For example, whether they constitute a means of reinforcing intimacy between friends or whether the emotional security provided by a friend increases when the relationship with them occurs via the internet (Pérez, 2018).

Contribution of character education approaches

This theoretical framework takes into account the growing relevance of the character education approach at the international level (Bernal et al., 2015). In this sense, educating in virtues does not depend on cultural views, as Arthur (2016) explains, and, on the other hand, as Brooks et al. (2019) point out, the context and teachers educate character whether they want to or not through their example. Hence, it is necessary for this training to take place in a conscious and deliberate manner.

In Spain, researchers such as Ahedo et al. (2020) advocate Aristotle's proposal of cultivating and practicing virtues until they become habits, in order to help students grow as individuals. This growth is especially important in childhood and adolescence, as pointed out by Naval and Bernal (2017), who add as roots of this new emphasis on character education the spiritual plane of the person, the integration of emotions and will, as well as humanistic training. Various programs are currently being implemented that seek to integrate character education into the curriculum at different educational levels in Spain (Domingo & Fernández, 2025; Cohen de Lara et al., 2024).

In a recent systematic review focusing on the issue of friendship from the perspective of character education, Espinosa et al. (2023) identified a predominance of the psychological approach in the 52 papers retrieved on this topic between 2007 and 2021. This viewpoint is oriented toward the instrumental treatment of friendship in terms of the benefits it brings to the health and well-being of the subject, and is more common than the philosophical-moral approach, which was only found in 36.54% of the studies analyzed. However, even in the psychological approach, friendship was indirectly recognized as a good in itself, although limited



in scope, focusing on well-being and functional utility. The studies analyzed the links between friendships and character development, noting that this connection is reciprocal. On the one hand, friendship can contribute to character development under certain conditions; on the other hand, some character qualities or strengths are more relevant than others in forging and maintaining friendly relationships. It is also noteworthy that 32.69% of the studies reviewed addressed this issue in relation to secondary education, the population that is the subject of this study.

From a psychological perspective, positive psychology contributes to character education by emphasizing the importance of cultivating human relationships, both to prevent psychosocial problems and to build individual happiness. In fact, in the PERMA model (Seligman, 2012), the R (positive relationships) indirectly refers to the virtue-strength of sincere friendship, since a good life requires a sense of belonging, mutual support, reciprocal trust, and the forging of healthy social bonds that enrich shared well-being.

On the other hand, from the perspective of character education with an ethical focus, Berkowitz et al. (2017) also talk about fostering meaningful relationships between school agents, such as friendships, because people learn more and better when they cultivate correspondence and emotional bonds with others. The PRIMED reference model also includes the R for relationships (Berkowitz, 2021), as the need to generate strong bonds and a positive support environment.

Along the same lines, the Jubilee Centre for Character and Virtues (2022) identifies strengthening friendships among students as a virtue that improves character. Friendship thus has a great transformative influence, as it impacts the ability to act, the socialization process, and the determination of actions that develop character, an influence, however, that is modulated by the qualities of friends (Kristjánsson, 2020b).

For all these reasons, it is important to consider whether ICT, as a vital context for youth development, contributes or not, and in what ways, to the personal development of students, through the effective improvement of the social and civic virtue proposed, at least from the subjective perception of the students.

Methodology

The work is based on a type of non-experimental descriptive research (Bourque, 2004), both qualitative and quantitative. A 40-question ques-



tionnaire was administered anonymously to a group of 131 students in their final year of secondary education.

The quantitative research method was used, based on an empirical descriptive study with an exploratory scope on adolescent behavior and perception. Taking into account the characteristics of the sample and the number of closed responses obtained, the results cannot be generalized because, to do so, the sample would need to be larger, include more varied profiles, and have been obtained randomly rather than by chance. The questionnaire included 17 open-ended questions which, through qualitative analysis, provide comprehensive knowledge that can complement and enrich the quantitative data in relation to previous studies (Corbetta, 2003; Yin, 2006). To this end, the narrative responses of the selected group were specifically analyzed (Stake, 2007) to gain a deeper understanding of their perceptions and propose results that could be useful to the scientific community. Open-ended questions give voice to participants, their arguments, and reflections, allowing for the study of experiences and meanings (Fink, 2003).

The research was aimed at students in their final year of secondary education, a middle stage of adolescence in which peer relationships, groups of friends, critical thinking, and sincerity in personal relationships take on special importance. In addition, these adolescents are expected to show a certain maturity and responsibility due to the need to decide their immediate future (Álvarez Justel & Álvarez González, 2021). The experience at the end of a stage enables responses based on a certain reflectiveness typical of a more relaxed adolescence. Hence, it is relevant to investigate how digital culture affects young people.

The questionnaire was applied to 153 students from eight schools located in six Spanish provinces in different autonomous communities. After an initial review, four surveys were eliminated because they were answered by high school students, and 18 were eliminated because they were duplicates, leaving 131 valid questionnaires for their analysis.

To select the schools, a type of non-probabilistic purposive sampling was used, based on a general sample of more than 100 private and state-subsidized schools recognized by the newspaper *El Mundo* (2021) during the 2019 and 2020 academic years as offering the highest educational quality according to 27 criteria.

The sample shows some features, as can be seen in the typological table (Table 1). First, there is a large overrepresentation of females (67.9%), which may reflect a greater willingness on the part of girls to share their habits and behaviors. In addition, subsidized schools (68.7%)

outnumber private schools, which corresponds to the greater extent of the subsidized network in Spain (Ministerio de Educación, 2021). A majority of students are 16 years old (67.9%) compared to those who were 15 at the time of completing the survey (29%), which may indicate greater autonomy among older students. Finally, the participating students have an average grade of 7.64, with the largest group receiving a B (71.75%), between 7 and 9.

Table 1
Sample typology box

Autonomous community		School ownership		Grade	Average
C-León	3.8	Subsidized	68.7	10	7.6
Biscay	3.8	Private	31.3	9	24.4
Madrid	13.7			8	23.7
Canary Islands	14.5	Age		7	23.7%
La Rioja	32.9%	15	29.0	6	11.5
Andalusia	41.3	16	67.9	5	7.6
				4	1.5
		Gender			
		M	32.1		
		F	67.9		

An ad hoc questionnaire, «Educational factors in the character formation of digital adolescents,» was designed to collect data. Professors from three universities participated in its preparation, refining the initial proposal after several revisions. The criterion «Character formation and the internet,» referring to sincere friendship, was considered for applying the survey.

The questionnaire was administered online to students at each participating center using Google Forms. SPSS 25 was used to obtain the results of the closed-ended questions; the open-ended questions required the Atlas.Ti 8 program.

Results

The responses are organized according to the semantic fields involved in the social and civic virtue under study: sincere friendship. Respon-



ses to three additional questions (20, 39, and 40) on perceptions of the contribution of ICT to personal development and the growth of virtues, and online experiences that have helped students in this regard are also included. The contributions obtained in these open-ended questions add greater understanding of meaning to the quantitative responses.

In terms of sincerity (Table 2), at the individual level, a large majority of students (87.8%) say they show themselves as they are on social media (question 29), although 59% acknowledge that they improve their online image (question 30). Overall, just over half (52%) believe that people are generally not sincere on the internet (question 31). When asked about the truthfulness of content, 72.5% are concerned about fake news (question 32), and a similar percentage (73.3%) call for more objective regulation (question 33).

Table 2
Items on sincerity in online interpersonal relationships

Pregunta 29: ¿Es cierto lo que ud. sube a redes sobre sí mismo?			
	<i>F</i>	Valid %	Cumulative
Yes, always	63	48.1	48.1
In general, yes	52	39.7	87.8
Only sometimes	15	11.5	99.2
No. Everyone "lies"	1	0.8	100.0
Total	131	100.0	
Pregunta 30: ¿Utiliza filtros que le favorecen, aunque camuflen su realidad?			
	<i>F</i>	Valid %	Cumulative
Always	10	7.6	7.6
In general, yes	28	21.4	29.0
Only sometimes	39	29.8	58.8
Not generally	54	41.2	100.0
Total	131	100.0	
Pregunta 31: ¿Piensa que la gente es sincera en internet?			
	<i>F</i>	Valid %	Cumulative
Overall, yes	2	1.5	1.5
Only sometimes	43	32.8	34.4

Not generally	68	51.9	86.3
No, but it does not influence you	18	13.7	100.0
Total	131	100.0	
Pregunta 32: ¿Le preocupa que se difundan falsedades en las redes?			
	<i>F</i>	Valid %	Cumulative
Yes, something should be done	95	72.5	72.5
It gives you publicity and fame	15	11.5	84
It is not that serious	11	8.4	92.4
I do not care if it does not affect me	10	7.6	100.0
Total	131	100.0	
Pregunta 33: ¿Con qué afirmación está más de acuerdo?			
	<i>F</i>	Valid %	Cumulative
Lack of regulation against abuse	96	73.3	73
Less regulation and more freedom	29	22.1	95.4
I do not care; I hack what I can	6	4.6	100
Total	131	100.0	

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The responses referring to friendship (Table 3) show that for a large majority of students (74.6%), social networks reinforce this virtue (question 37); for the rest, they either have not influenced or, in any case, do not have a negative influence, since no one chose this last option.

When asked about the type or quality of relationships facilitated by social networks, the perception is not as positive as in the previous question. As the answers to question 38 show, only 40% continue to call them «friendships» or associate them with this, while the rest appreciate these contacts more for their interesting or useful nature (25.2%), or even doubt that they contribute anything due to their superficial nature (25.2%). However, only a minority (9.9%) view online relationships negatively.

These results can be supplemented with the responses to question 20—on the relationship between social media and personal development—and with the narratives obtained in the open-ended questions (39 and 40), in which students are asked to describe experiences of how social media has influenced them personally.

The responses to question 20 show that more than three-quarters of students (76.3%) view social media positively in terms of their perso-

nal improvement. As for the open-ended questions about experiences on social media that have contributed to their personal development, Table 4 shows some evidence: 42 students say they either do not have any, do not know, or do not want to share them; in addition, 14 leave the answer blank. Of those who provide more information, 59 refer to positive situations, compared to 15 who refer to rather negative ones.

Table 3
Items on online friendships

Pregunta 37: ¿Qué opina sobre el influjo de las redes sociales en la amistad?			
	<i>F</i>	Valid %	Cumulative
Strengthen and maintain friendships	91	69.5	74.6
No influence at all	31	23.7	25.4
Negative influence	0	0	0
Total	122	93.1	100.0
Lost system	9	6.9	
Total	131	100.0	
Pregunta 38: ¿Cuál es su percepción del tipo de contactos que fomentan las redes sociales?			
	<i>F</i>	Valid %	Cumulative
Positive, for making friends	52	39.7	39.7
Interesting and useful	33	25.2	25.2
Superficial, does not contribute to it	33	25.2	25.2
Negative and unrealistic	13	9.9	9.9
Total	131	100.0	100.0

Among the positive responses, codes emerge that have to do with friends (21)—made (9), kept (8), or regained (3)—and secondly with acts of support (17)—to others (11) or from others (7). They also add the empathy of others (7) and their example (7). Finally, the possibility of gaining new knowledge (6). As for negative experiences (15), only fake identity (4) is repeated, and the rest are scattered among: wasting time, insulting, provoking, being scammed, pretending, criticizing, showing intolerance, suffering obscenities, and being silenced.

Table 4
Frequency of codes on experiences of the impact of the internet on personal growth

Category 1: positive influence of social networks	<i>f</i>	Sample text
To make friends, restart or maintain friendships	21	<ul style="list-style-type: none"> • I met a girl from Madrid who had very different opinions to mine, and we became friends. • Maintaining relationships with distant friends. • I contacted my friends from a camp I used to go to when I was little, and we all got together to spend time together again.
They encourage mutual support	17	<ul style="list-style-type: none"> • A friend of mine got dumped by his girlfriend, and all of us helped him with whatever he needed. • Once I had a personal problem, I talked about it through a video game, we shared our social media accounts, and that is how it helped me solve it.
They offer good examples to follow	7	<ul style="list-style-type: none"> • There are videos that make me think about what I would do in a given situation.
They promote empathy	7	<ul style="list-style-type: none"> • Sometimes I have seen other people's points of view and it has helped me understand what others are going through.
They provide new knowledge.	6	<ul style="list-style-type: none"> • Any type of video that helps me reflect or expand my knowledge.
Category 2: Negative influence of social media	<i>f</i>	Sample text
Identity theft	4	<ul style="list-style-type: none"> • In my case, none, but I know someone who was tricked into meeting up with someone using a fake account. This makes you reflect and think that you should not trust anyone.
Other negative uses		<ul style="list-style-type: none"> • I am more critical of what I read; I do not believe everything the media says. • When someone disagrees with an opinion and makes offensive comments about it.

The last question in the questionnaire (Table 5) completes the information by asking participants for details of how this experience contributed to their personal growth. Some now add a positive impact from a negative experience. In this case, the responses have been categorized according to the virtue to which they refer. Leaving aside 23 blank responses, 38 reiterate that they have not had any remarkable experiences or that they do not know or do not remember them, 9 repeat what was said in question 39, and 2 do not wish to say, there are 66 students left. Their responses highlight references to being supportive (19), followed by im-



proving friendships (14), being prudent (12), more open (7), strong (7), or enjoying themselves (3).

Table 5
Frequency of values-virtues that the internet helped to develop

Category: value-virtue that is strengthened	<i>f</i>	Sample text
Solidarity	19	Seeing how people you don't know, even in real life, are willing to help you with your problems. Because I care about others.
Friendship	14	Because I've learned that your circle of friends doesn't have to be just from school. Because getting someone you love back is always a good thing.
Prudence	12	Because I thought and reflected and saw if my behavior was appropriate. Because you can learn from everything bad.
Openness	7	Because it showed me that there are many different people in the world.
Strength	7	Because I learned to ignore all the nasty comments made by people I didn't even know. To feel more confident and stand up for myself.
Enjoy	3	Because it was related to something I like to do.

Discussion

In today's modern, digitally mediated world, which presents a fragmenting, disintegrating, and individualistic tendency (Bauman, 2022; Giddens, 2007; Lipovetsky, 2004 and 2008; Lobo, 2019), i.e., whose structures incline toward isolation, the expansion of social and political capacities is an urgent task. It is necessary to direct additional efforts towards educating human relationships, through educational actions that deliberately or intentionally aim to cultivate bonds of intimacy with significant others based on authentic (sincere) openness and mutual benevolence and the pursuit of the good of the other for its own sake and not only for the utility it may bring.

The tendency toward the dissolution of social relationships and the erosion of their quality, transforming them into liquid, superficial, and instrumental—and therefore self-referential—relationships is not only

due to the liberal configuration of contemporary societies, but also to the predominant use of ICTs that orient them toward individual consumption for the satisfaction of desires and entertainment as distraction (Dans et al. 2022), as opposed to active and prosocial uses (Ferreira & Rodrigues, 2017; Tena & Merlo, 2017).

This article has sought to analyze young people's perceptions of whether ICTs facilitate their social relationships of friendship—contributing to a more humanizing experience—or whether they add difficulties, as well as whether they facilitate a sincere way of presenting oneself to others. As Cáceres et al. (2009) point out, the intentional appearance with which the subject presents themselves is the starting point from which to build bonds with others. Authentic openness is only possible from a personal intimacy that is honestly revealed in its reality, i.e., from the development of sincerity.

The impact that ICTs have on the understanding of virtues is remarkable, as they have transformed their meaning to a certain extent, as Caro (2015) points out, adding new dimensions to them, to the point that some have proposed the creation of new virtues that respond to the peculiar reality of the virtual world. Thus, for example, there is talk of cyberphronesis or cyber wisdom (Polizzi & Harrison, 2020), digital responsibility (Aznar et al., 2024), and digital critical thinking (Gozálvez et al., 2022).

Without entering into the debate on whether or not to expand the list of classical virtues (Fuentes and García Gutiérrez, 2021), it is a fact that the digitization of human processes has added new demands to the traditional education of social and civic virtues (Dabdoub et al., 2021) Furthermore, a virtue-based approach to digital education shows promise.

In the case of friendship, Kristjánsson (2021) analyzes the possibility of online friendship based on character or virtue in the Aristotelian sense. Categorizing it as an interpersonal relationship allows it to be distinguished from other as less enduring bonds—which more than 50% of the students surveyed in this study perceive on the internet—which is consistent with the consideration of friendship as a virtue, which, once forged, tends to endure as a stable disposition, although it is not unbreakable.

As for the sincerity required in personal friendships, in the infodexation or information overload of the internet, where all content is presented in a homogeneous manner, there is fake news, which spreads faster than the truth (Vosoughi et al., 2018) because it is designed to exploit human vulnerabilities: «Attention is captured by novelty, and fake news, misinformation, or disinformation are novel» (Voinea et al., 2020, p. 2352). This issue concerns young people: 72.5% of the students in this



study believe that something must be done about it, which coincides with the 73.3% who demand more regulation for this purpose. The need for regulation to restrict false information online, even if this means a certain reduction in the freedom to access and publish content, is recognized by a growing number of people, according to a study by Mitchell and Walker (2021) in the US, especially in the postpandemic context. In this regard, cognitive assistants have been developed to guide web browsing (Noor, 2015; Voinea et al., 2020), training users in active and critical use to help them discriminate between information.

Indeed, in the digital world it is particularly easy to lie (for example, buying followers or «likes,» altering one's own reality to make it more pleasant, or changing one's identity), so it includes a very significant element of unreality (Siurana, 2022). In addition, the internet has a structure that does not classify information according to quality criteria, but rather according to market criteria (distraction by design) (Voinea et al., 2020), which encourages the exposure of one's own identity in a way that is also marketable or attractive. In the study by Hernández Prados et al. (2015a) on the values perceived and practiced by young people on the internet, honesty was among the least frequent; 65.6% of those surveyed in this study also think that people in general are not sincere on the internet, although this percentage drops when asked about their own behavior regarding the use of filters that camouflage their reality. In our study, only 29% say they always or generally use them, similar to the 26% of American young people who said they gave false information to protect their privacy in the study by Madden et al. (2013).

These results coincide with those of the study on identity and young people on the internet by Cáceres et al. (2009), who found that young people see themselves as authentic and sincerely transparent in their relationships, somewhat less so with their friends, and much less so with other people. In other words, respondents tend to define themselves as sincere, as opposed to what they perceive to be happening on the internet in general. Similarly, in Conde et al. (2002), a majority of respondents considered themselves sincere: «61% of the sample say they never lie, 31% say they lie sometimes, and only 8% say they lie almost always or always» (p. 141). This can be attributed to a social desirability effect, as indicated by Cáceres et al. (2009), whereby socially reprehensible behaviors are masked or avoided.

The way young adolescents present themselves to others online is mediated by their need for recognition from peer groups, above and beyond their families, a circumstance that is particularly acute in adoles-



cence. However, recognition and empathy are achieved more effectively through the exposure of one's own vulnerability (Andolina & Conklin, 2021) rather than by hiding it, bearing in mind that other individuals can also recognize themselves in the limits or vulnerability that a person expresses and shares. However, for this fragility to be revealed, it is necessary to create safe spaces of trust where people can show themselves as they are, without fear of being ridiculed (Plaza de la Hoz, 2022). While this environment in the classroom depends largely on teacher mediation, in virtual reality it is something beyond the control of the individual. In this regard, Conde et al. (2002) found that the percentage of young people who perceived the internet as a safer space for communicating their intimacy than real life was practically equal to those who perceived it as less safe.

If we now focus the discussion on friendship, the students surveyed hold this virtue in high regard when rating their online relationships. Three-quarters of them believe that social media strengthens their bonds of friendship, while none chose the option of negative impact. In this sense, they contradict the conclusions of Torres and Juárez (2017), who limit the scope of technologies to the creation of less solid bonds, but they confirm other findings (Antheunis et al., 2016; Plaza de la Hoz, 2018; De Stasio et al., 2019) in which ICTs improve friendships among young adolescents. Along these lines, Valkenburg et al. (2017) agree on the importance of networks in increasing social self-esteem, especially among older adolescents, such as those in this sample, and this is related to one of the functions of friendship. Conde et al. (2002) also found that «of the feelings experienced through chat contacts, the most widespread is friendship: 86% of subjects acknowledge having felt it» (p. 142).

The comments of the students surveyed in this study about the online experiences that have contributed most to their personal development indicate that what is most positively valued about the use of networks is the experience of making, maintaining, or reconnecting with friends thanks to the internet. This continues to be the main attraction of these networks, as Del Río et al. (2010) and Dans et al. (2022) pointed out.

What these authors report does not suggest a naive view of online contacts, but rather an ambivalent one (Livingstone et al., 2012; Vandoninck et al., 2013). In line with the observations of Martín Martín et al. (2021) and Ballesteros and Picazo (2018), adolescents see social media both as a channel for strengthening relationships and as a context for cold and impersonal relationships: it should be remembered that 10% of respondents rate virtual contacts as negative or unreal, a quarter consider them superficial, and another 25% consider them merely useful.



Conclusions

Regarding the objective set out at the beginning of this article on young people's perceptions of how ICTs impact their sincere friendships, the results of this study coincide with previous research on the relative maturity of adolescents when it comes to managing relationships through ICTs. Although they tend to experience them as a means of facilitating communication and personal relationships, aspects that are highly valued by young people in this age group, 60% acknowledge problems arising from the type of virtual contacts and mediation. The novelty of this study lies in addressing this issue by relating these experiences of ICT use to character formation and the impact of the network on personal improvement (a virtue-based digital education approach).

In terms of the sincerity of relationships, the data collected shows that young people perceive themselves as personally honest, but express concern about the general lack of respect for the truth on the internet, even so around a third still admit to not being entirely sincere on the internet. As a result, on the one hand, of the fragility inherent in adolescence, because the image before the peer group weighs more than reality and, on the other hand, of the technical possibilities of anonymity and concealment offered by the virtual environment.

An explicit virtue-based approach to ICT can help solve these problems. This approach considers the virtual world as another sphere of action for the practice of virtues and, therefore, as a field of moral development (or deterioration). In addition, it allows for the generation of a perception of the positive value of the digital environment when virtuous behaviors are detected and explored in it (Hernández Prados et al., 2015b). To achieve this, guidance from teachers is needed, not only to warn of the dangers and risks of ICT or its purely technical possibilities, but above all of the virtues that digital behaviors can help to forge.

Methodologically, it is suggested that future research use larger and more diverse samples of students. In terms of content, the study could be extended to other social and civic virtues such as cooperation and justice, which take on a new scope in the digital environment. The line of research on social and civic virtues and ICT is yet to be developed and serves to empower students in the ethical and prosocial use of the internet, as opposed to passive and consumerist uses.

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CRITICAL THINKING SKILLS MOTIVATED BY THE STUDY OF HUME'S PROBLEM AND CONFIRMATION PARADOXES

Habilidades del pensamiento crítico motivadas por el estudio del problema de Hume y las paradojas de la confirmación

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Abstract

The ways of dealing with paradoxes have value in the educational context because they imply the use of critical thinking strategies by learners. Precisely, the important thing about this research is that it points out which critical thinking skills allow studying the problem of induction and the paradoxes of confirmation, specifically that of Hempel's crow and Goodman's *grue*. The objective of this paper is to highlight the way in which the different solutions (or non-solutions) proposed for both the case of induction and the challenge of confirmation develop certain critical thinking skills. The methodology of this work is qualitative and is based on the search for information and analysis and interpretation of data found in books, articles, dictionaries, theses, among others. However, formal logic is also used. As results these are the following findings: Hume's problem alerts us that there are several philosophical reasons for not trusting in inductive reasoning; likewise, the analysis of two paradoxes (Hempel's and Goodman's) do the same with the concept of confirmation. As a main conclusion it can be stated that 22 critical thinking skills have been found that can be developed by the solution of these issues.

Keywords

Induction, Hume's Problem, Analysis, Hempel's Paradox, Goodman's Paradox, Critical Thinking.

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Resumen

Las formas de enfrentar las paradojas tienen valor en el contexto educativo porque implican el uso de estrategias del pensamiento crítico por parte de los aprendices. Precisamente, lo importante de esta investigación es que señala qué habilidades de pensamiento crítico permiten desarrollar el estudio del problema de la inducción y las paradojas de la confirmación, específicamente, la del cuervo de Hempel y la *verdul* de Goodman. El objetivo de este escrito es destacar el modo en que las distintas soluciones (o disoluciones) propuestas, tanto para el caso de la inducción como para el desafío de la confirmación, desarrollan ciertas habilidades de pensamiento crítico. La metodología de este trabajo es de orden cualitativo y se basa en la búsqueda de información, análisis e interpretación de datos encontrados en libros, artículos, diccionarios, tesis, entre otros. No obstante, también se recurre a la lógica formal. Como resultados se tienen los siguientes hallazgos: el problema de Hume nos alerta de que hay varias razones filosóficas para no confiar en el razonamiento inductivo; asimismo, el análisis de dos paradojas (Hempel y Goodman) hacen lo propio con el concepto de confirmación. Como conclusión principal puede afirmarse que se han encontrado 22 habilidades de pensamiento crítico que la solución de estos asuntos puede desarrollar.

Palabras clave

Inducción, problema de Hume, análisis, paradoja de Hempel, paradoja de Goodman, pensamiento crítico.

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Introduction

The most important difference between deductive and inductive inferences lies in the degree of relationship between the premises and the conclusion. In a deductive inference, the conclusion necessarily follows from the premises. In contrast, in an inductive inference, the conclusion does not necessarily follow from the premises: they only make it probable (Hernández & Parra, 2013; García, 2012b). For example, if a soccer team wins two games in a row, it is likely to win the next game.

In this regard, inductive logic seeks to develop an adequate concept of correctness to characterize inductive inferences that are somehow justifiable or acceptable. However, according to Da Costa (2000), there are many types of inductive inferences, such as: induction by simple enumeration, analogy, statistical inference, Bacon-Mill elimination methods, the hypothetical-deductive method, and probabilistic inference. Abduction can be added to this list.

Amidst such variety, it is difficult to specifically characterize what an inductive inference is. And if adding Hume's problem, according to which there is no adequate foundation for induction, the issue becomes even more complex. However, apart from induction, the concept of confirmation also represents a challenge at the logical level. Specifically, we seek to address the issue of the *verdul* and crow paradoxes, as well as the problem of induction raised by Hume.

Our goal is to highlight how the different solutions (or dissolutions) proposed—both for induction and for the challenge posed by confirmation paradoxes—develop critical thinking skills. Although induction is a resource widely used by science, it has problems. On a philosophical level, some troubling questions have been raised. For example, how reliable is induction if, knowing that *a* is lead, *b* is lead, *c* is lead, *d* is lead... and *z* is lead, it is not possible to necessarily conclude that «all objects are lead»? Furthermore, what about the reverse process called «confirmation»? Every time it is stated that «all reptiles are green,» is it reliable to confirm this generality by observing that *a* is a green reptile, *b* is a green reptile, *c* is a green reptile, *d* is a green reptile... and *z* is a green reptile?

This issue will be analyzed later, but for now, it is worth noting that both induction and confirmation pose problems at the philosophical level. The aim is to explore the different approaches that have been taken to these problems so that, through these attempts at solutions, we can glimpse the different critical thinking skills that motivate philosophical proposals.

The topic is therefore important at the educational level, since educators who seek to motivate critical thinking in their students will need strategies to succeed in this task, and one of those strategies could consist of selecting problems such as those mentioned above. The topic is also current, since Hume's induction, as well as the paradoxes of confirmation, have not received a definitive and unique solution. The issue remains under discussion, and its approach even involves interdisciplinary connections.

The methodology of this work is qualitative and is based on the search for information and the analysis and interpretation of data found in books, articles, dictionaries, theses, among others. It focuses especially on logical analysis through the use of various theories such as propositional logic, class logic, first-order logic, and the reconstruction of arguments as tools to study the problem of paradoxes. It also points out which elements of critical thinking have been put into practice in an attempt to find a solution to these complex paradoxes and shows that there is no single way to approach these problems, as each of the ways of understanding paradoxes develops certain aspects of critical thinking that are essential for education.

To develop these ideas, first, the different types of induction are presented; then, Hume's problem of induction is raised; the confirmation paradoxes are also formulated: Hempel's ravens and Goodman's *verdul*; Mill's proposal to try to substantiate induction is then analyzed; each of the suggestions that have been designed to address the two aforementioned paradoxes is reviewed; finally, the critical thinking skills that have

been reinforced by reflecting on Hume's problem and the two aforementioned confirmation paradoxes are indicated.

Theoretical basis

The theoretical foundations necessary to understand and adequately resolve the problem posed are detailed below.

Induction by simple enumeration or simple induction

If $a_1, a_2, a_3, \dots, a_n$ are elements of class A and it is found that all of them also belong to another class B, then, assuming that no element of A is known that does not belong to B, it is concluded that all of A is B. However, for this inference to be correct, certain conditions must be met: the sample $(a_1, a_2, a_3, \dots, a_n)$ must be representative and the number of its components must be appropriate, etc. Later on, we will see how Hume's problem questions this type of procedure.

The analogy

The structure of the analogical argument is as follows:

1. A is similar to B (in certain respects).
2. A has property C.
3. Therefore, B probably has property C (Weston, 2006).

For example, Ernest Rutherford made a comparison between the solar system and atoms. The solar system is similar to the atom (since both have a structure in which other things orbit around a nucleus). In the solar system, the Sun has much more mass than the planets. Therefore, in the atom, the nucleus contains most of the mass. This was the basis of Rutherford's model of the atom (Solís & Sellés, 2008). It should be noted that the risk of this variant of induction is that it can fall into the fallacy of false analogy (Bordes, 2011).

Statistical inference

This consists of parameter estimation, hypothesis testing, and decision theory. Its logical form is the so-called statistical syllogism: K% of A are B; x is A, therefore x is probably B.



For example, during May 2011, at the Aragón School in the city of Tacna, after the summer holidays, it was cautiously observed that 95% of students had symptoms of anorexia. It is known that Adrian studies at that school and lives in the city of Tacna. Therefore, it is likely that he suffers from anorexia. Similarly, it should be noted that the risk of this type of induction is falling into statistical fallacies (Ruiz Matuk, 2023).

Bacon-Mill elimination methods

Bacon proposed a particular inductive method. This begins by ordering the facts according to three tables: a table of presences (facts in which that nature or phenomenon occurs), a table of absences (facts in which it does not occur), and a table of degrees (facts in which it varies). The following is a historical example that illustrates the above. Gregor Mendel was a 19th-century Austro-Hungarian botanist and monk who conducted experiments that led to the discovery of genetics (Solís & Sellés, 2008). In the table of presences, Mendel could note that when crossing pea varieties, certain hereditary traits were maintained in the offspring. In the absence table, Mendel would mention those traits absent in the progeny. Finally, to complete the degree table, Mendel would observe how other factors such as flower color, seed shape, etc., would be maintained or not despite the different initial conditions. In this conditioned example, Mendel uses Bacon's inductive method to study the basis of the laws of inheritance. Through systematic observation and the exclusion of variables, he concludes that there is something in peas (now known as genes) that is responsible for the variety of traits in offspring. The problem with this method is that it lacks rigor; for example, there may be confirmation bias on the part of the researcher or omission of variables that are decisive in confirming a particular issue.

Mill's five inductive methods

Mill proposed five inductive methods: concordance, difference, indirect difference, residue, and concomitant variants. Each of these methods is explained below according to Piscoya (2009).

Given certain requirements as satisfied, the *method of concordance* provides us with complete rigor, with the necessary conditions for a phenomenon. If, among the cases under investigation, a single factor is found to be common, it can be assumed that this factor is the cause of the phenomenon under study. For example, if a new teaching method is applied to a group of chemistry students and another to a group of geography

students, and a significant improvement in learning is obtained in both cases, then it can be assumed that the cause of the improvement lies in the application of the new method mentioned above.

Similarly, the *method of difference* leads us to sufficient conditions. If one circumstance among several causes certain phenomenon, and the phenomenon occurs differently when that circumstance is omitted, then that circumstance is the cause of the phenomenon. Example: all the members of the hiking group got sick except Ana, so the doctor asked them what they ate. This was the report:

Table 1
People and foods

	Peach in syrup	Cheese	Canned shrimp	Dried meat	Canned beans	Tuna	Orange juice	Sausage
Liz	x	x		x	x	x		
Pablo	x	x	x	x	x			
Álvaro			x		x	x	x	x
Ana	x			x		x	x	x

Therefore, looking at the table, it can be concluded that the canned beans caused the illness, because Ana, who did not get sick, was the only one who did not eat them.

The *indirect method of difference* is a combination of the concordance and difference methods. Mill (1917) describes this method as follows:

If two or more cases in which the phenomenon occurs have a single circumstance in common, while two or more cases in which it does not occur have nothing in common other than the absence of this circumstance, the circumstance by which the two groups of cases differ is the effect, or the cause, or a necessary part of the cause of the phenomenon (p. 376).

A historical example illustrating the indirect method of difference is the case of John Snow and the cholera outbreak in London in 1854. It could be argued that John Snow, an English physician, used this method to investigate the cause of the spread of cholera. He observed that most cases were near a public water source, the Broad Street pump. By comparing two groups of cases, those who obtained water from the pump and those who did not, he noticed that the only common circumstance among the cholera cases was the use of the water pump. By convincing the authorities to remove the pump handle, he managed to stop the spread of the



outbreak and laid the foundations for the development of public health measures and the understanding of waterborne diseases (Borghi, 2018).

The residue method can also be mentioned. According to Mill (1917): «Separate from a phenomenon the part that is known, by previous inductions, to be the effect of certain antecedents; the residue of the phenomenon is then the effect of the remaining antecedents» (p. 379). Imagine that you are researching plant growth and have identified two factors that could affect it: sunlight and water. After conducting experiments, you discover that you can accurately predict plant growth based on these two factors. However, when applying Mill's residual method, it is found that there is still unexplained growth. This suggests that there may be other factors, such as soil nutrients or temperature, that have not yet been considered. Mill's residual method encourages exploration and discovery of these additional factors that may influence plant growth.

To apply the *concomitant variants method*, variations in one phenomenon must be made and then detected which other phenomenon also varies. If found, that phenomenon can be considered the cause being sought. Example: if in Mexico, between 1970 and 1991, for every 100,000 inhabitants, the number of alcoholics had increased from 22.83 to 43.4, and at the same time, the incidence of cirrhosis had increased from 23% to 45% during those years, then it could be assumed that one factor causing the increase in cirrhosis in Mexico is alcoholism. All of these methods are more rigorous and refined than those proposed by Bacon.

Hypothetical-deductive method

When there are several particular phenomena, laws, or hypotheses that need to be explained or unified, a more general hypothesis or theory is usually formulated from which the former are derived. Popper (1962) was the most notable scholar of this type of method. It has certain phases that will be illustrated with an example:

1. *State the problem*: at the end of the 19th century, astronomers Adams and Le Verrier discovered that the planet Uranus was behaving abnormally because it did not follow the orbit predicted by Newtonian laws.
2. *Formulate a hypothesis*: Le Verrier assumed that this irregularity was caused by the existence of another planet in an outer orbit that exerted a gravitational influence on Uranus.
3. *Deduce observable consequences*: following Le Verrier, it was thought that if such a planet existed, its mass and the point in

the sky where it should be could be predicted and, therefore, it could be observed through a telescope.

4. *Verify*: in 1846, astronomer Johann Galle detected the planet they were looking for. They named it Neptune. Thus, the hypothesis was corroborated by the facts.

It can be said that the method follows an inductive process (in the observation of the problematic situation), a deductive process (in the formulation of the hypothesis and its deductions), and returns to induction for verification.

Probabilistic inference

In inductive reasoning, the premises do not logically imply the conclusion. However, according to various specialists, there is a probabilistic relationship between the conjunction of the premises and the conclusion: if the former are true, there is a certain probability that the conclusion is also true. For example: Darwin observed a series of pieces of evidence that led him to formulate his famous theory. Thus, if the assumptions of species diversity, adaptation to the environment, and modified descent are accepted, it is more likely that the conclusions of the theory of evolution by natural selection are correct (Solís & Sellés, 2008). Here, the problem lies in the fact that the concept of probability remains far from complete certainty that something will or will not occur. However, this case of inference is the most successful compared to the others.

Abduction

This is also known as «inference to the best explanation.» It consists of inferring which adequate explanation provides a better understanding of what is observed. The idea is to seek the hypothesis that is most probable and, in turn, makes it possible to understand why what is observed occurs (Blasco & Grimaltos, 2004). Mora *et al.* (2023) write:

This argument puts forward a premise and a hypothesis to explain it. This is a line of reasoning similar to that used by detectives. In other words, it starts with clues, traces, or evidence, and from that data, the crime scene is reconstructed in order to solve the mystery. In this sense, it starts from the conclusion in order to construct the premise or premises (p. 296).

For example: Alfred Wegener, German geophysicist and meteorologist, observed that there were similarities in the shapes of the conti-



nents' coastlines, that there were identical fossils in geographical areas far apart from each other, and that different continents had coincidences in relation to their geological formations. This led him to hypothesize that all the continents had been joined together in the past in what was called Pangea. This is known as the theory of continental drift (Solís & Sellés, 2008). In this case, the risk lies in the fact that the researcher's reconstruction may fit what has been observed and still be incorrect.

Hume's problem

Criticism of science comes from different areas. For example, according to Gazmuri (2022), scientific reason is believed to be infallible, and this has damaged the emotional side of human beings. Beyond anti-scientific points of view, it can be seen that scientific discourse has certain limits, without this implying any contempt for human beings. Thus, within the very processes of scientific reasoning, such as induction, it is possible to glimpse the limits of science. It was the philosopher David Hume who raised the problem of induction, but although his formulation relates to induction by enumeration, it applies to any type of induction in which the conclusion is probable. In short, this problem consists of trying to answer the following questions: How do we know that the sun will rise tomorrow? What is the reason for asserting that all men are mortal? Thus, the central problem of induction is to find some form of justification for all types of correct induction used or usable by science. As is well known, one can only move from particular premises to probable general conclusions. For example, if you observe 1,000 swans that are white, you can say that probably all swans are white. In logical terms, suppose that many particular cases have been found: $P_a \wedge P_b \wedge P_c \wedge P_d \wedge \dots P_z$. From these, it is not possible to conclude necessarily that «all are P,» that is, $(\forall x) P_x$. At most, one can conclude that «some are P,» that is, $(\exists x) P_x$. However, it can also be said that it is probable that $(\forall x) P_x$. Nevertheless, we must remember the warning that there may be a million pieces of evidence supporting this or that generalization, but only one counterexample is enough to invalidate it (Hume, 1984; Popper, 1962).

Experience does not confirm that the future must conform to the past. In other words, beliefs about the future based on the past are not sufficiently justified. In summary: the following formula expresses the logical invalidity of induction $(\exists x) P_x \rightarrow (\forall x) P_x$. The scheme is invalid because one cannot move from the proposition «something is toxic» to the proposition «everything is toxic.» At this point, to illustrate this situation,



we recommend reading about Russell's inductivist turkey, mentioned by Chalmers (1990).

The paradoxes of confirmation

Also called «epistemological paradoxes» by Peña and Ausín (2012), these paradoxes are related to induction and arise when it is accepted that every generalization finds confirmation in its particular cases. Consider the question logically: if science and its laws are to be trusted, then every time it is stated that $(\forall x) Px$, this generality can be confirmed by each particular case of the following conjunction $Pa \wedge Pb \wedge Pc \wedge Pd \wedge \dots Pz$.

THE RAVEN PARADOX

This paradox was proposed by Hempel (1945). It is known that the logical form of a scientific law is $(\forall x) (Px \rightarrow Qx) (R)$. However, if the notable equivalence known as «transposition» is applied, an equivalent formula can be obtained: $(\forall x) (\sim Qx \rightarrow \sim Px) (R-)$. This helps us understand the paradox of crows or confirmation. If we understand that «all crows are black» is logically equivalent to «everything that is not black is not a crow,» a problem arises. According to Clark (2009):

It would seem that $(R-)$, «Nothing that is not black is a crow,» is reinforced by finding things that are neither black nor crows, such as white pens. But the existence of white pens does not seem to corroborate «All crows are black.» Most of the things we see are neither black nor crows. Does each of them really contribute to reinforcing this generalization? (p. 75).

Schematically, Hempel's paradox is posed as follows:

- *Nicod's criterion*: the universal affirmative proposition is confirmed by an individual who fulfills the two properties involved.
- *The equivalence condition*: what confirms statement A also confirms B to the same extent if and only if A and B are logically equivalent to each other.

Therefore, a green pen confirms that «all crows are black.»

THE GOODMAN PARADOX

This paradox was proposed by Goodman (1955). Consider the following predicate: «Green if examined before the year 5000 AD or blue if examined after.» Now replace this complicated predicate with the term *ver-*



dul. With this, all the evidence that exists (for example, having seen 1000 emeralds) to say that something is green will also serve as evidence to say that it is *verdul*. So which of the two is it? It cannot be both, as they are logically incompatible. However, induction provides equal evidence to support both hypotheses. Therefore, it is impossible to choose between them based on induction. Next, this point is reinforced to better understand the situation using a table.

Table 2
Rules and predictions

Inductive rule	“Green” prediction	Green prediction
All previous F are G.	All emeralds before the year 5000 have been green.	All emeralds before the year 5000 have been <i>verdul</i> .
Therefore, the next F will be G.	Then, the emerald seen after 5000 will be green.	Then, the emerald seen after 5000 will be <i>verdul</i> .

If a *verdul* emerald is found (before 5000 AD), it can be stated that it will appear green and not blue. Thus, if all emeralds examined before 5000 are green, after the year 5000, given the inductive rule, it should be predicted that the next emerald observed will be *verdul*. Therefore, even though we are aware of which prediction is genuinely confirmed (i.e., that it will remain *green*), it is also true that both can be considered confirmed (namely, that it will remain *green* and *verdul*).

Critical thinking

Critical thinking is the ability to analyze and evaluate information rationally and objectively. This type of thinking seeks to reflect on the validity of arguments, the identification of biases, contradictions, fallacies, and paradoxes in order to reach justified conclusions. Critical thinking means the ability to think clearly, logically, coherently, and based on evidence.

This type of thinking is fundamental to human development in all its dimensions. In the university setting, it promotes the ability to ask questions, critically evaluate accepted ideas, and make decisions based on available information. This is especially important in a world where misinformation and half-truths that seek to manipulate or mislead the unwary are increasingly prevalent (Bezanilla Albusua *et al.*, 2018; Cangalaya, 2020).

Critical thinking can be developed through constant practice in analysis, evaluation, and problem solving. For example, if one wishes to develop this mode of thinking, one should discuss and debate, solve

mental challenges, and reflect on one's own thoughts. In relation to logic, critical thinking focuses on the tasks of identifying premises and conclusions, detecting fallacies, constructing good arguments, defining concepts appropriately, and resolving paradoxes. And, in relation to science, critical thinking studies the empirical nature of evidence and the design of appropriate experiments to test hypotheses. Thus, it is necessary to emphasize the proper formulation of hypotheses, the correct interpretation of results, and the logical development of theories that are based on empirical reality and aim to make predictions.

Based on the above, what we want to know is which critical thinking skills are developed through the study and attempts to solve the problem of induction, as well as the paradoxes of confirmation.

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Methodology

The methodology of this work is qualitative and is based on the search for information and the analysis and interpretation of data found in books, articles, dictionaries, theses, among others. This strategy seeks to develop an analytical and reflective perspective and to gain a thorough understanding of the theoretical and practical approaches used to address the issues raised, in the same way as analytical philosophy does (Borja *et al.*, 2017). The important thing is to analyze the information collected in detail and thoroughly. Critical interpretation of the information is not neglected. This allows space to question one's own biases, assumptions, and prejudices in order to be open to perspectives other than one's own.

On the other hand, logical analysis will also be used. This means that various theories such as propositional logic, class logic, and first-order logic will be used, but at a very basic level (Mora *et al.*, 2023; Piscocoya, 2007). In this way, the truth value of disjunctions and conjunctions will be evaluated, Venn diagrams will be used to identify and analyze the four established zones when two classes are related, and quantifiers and predicates, among others, will be used to formalize certain statements related to the problem. In addition, the structure of inferences that separates the premises from the conclusion by means of a horizontal bar will be used frequently.

Analysis and results

In what follows, the problems raised will be analyzed and the attempted solutions found will be presented.

On Mill and Hume's problem of induction

In *System of Deductive and Inductive Logic*, Mill (1917) defines deductive logic as the science that seeks the correct inference of some propositions from other propositions. On the other hand, inductive logic allows us to establish how certain propositions come from generalizations of observation and also provides rules for discovering the propositions needed in scientific research. According to Stuart Mill, logic (deductive or inductive) is concerned with studying the proof of the truth of propositions. But for an inference to be useful to science, its conclusion must establish a new truth in relation to what is stated in the premises. In other words, every legitimate inference must actually increase knowledge and, therefore, must be amplifying (García, 2012a).

With regard to the problem raised by Hume, Mill asserts that an inductive inference is logically justified when it is based on a particular case of the principle of uniformity. A regularity of the past can only be generalized to the future by trusting that nature always behaves in the same way. This is called the «principle of uniformity of nature» (PUN). This principle implies that what happened in the past is a reliable guide to what will happen in the future. Thus, the PUN can be considered the foundation of induction because it constitutes the logical justification that supports any inductive inference, i.e., this principle is a necessary condition for proving its logical validity. For example:

1. It has been proven 150 times that water boils at 100 °C.
2. Nature behaves uniformly (PUN).
3. Therefore, in the future, water will boil at 100 °C.

Now, premise 1 is true, but how do we know that premise 2, which is necessary for any inductive reasoning to work, is true? How do we arrive at the idea that nature behaves uniformly? Perhaps the following can serve as a basis:

1. We observe that fire «always» burns our skin.
2. We observe that the sun «always» rises in the east.
3. We observe that magnets «always» attract iron.
4. Therefore, nature will behave uniformly (PUN).

The above indicates that the principle of uniformity of nature has been obtained in turn by induction, generalizing particular cases, i.e., a general conclusion has been obtained. The problem is that the principle of uniformity of nature can only be obtained through another inductive

reasoning. Therefore, inductive reasoning is explained by the principle of uniformity of nature, which is itself explained by another inductive reasoning. And, once again, inductive reasoning would be explained by that principle. This, which had already been anticipated by Hume (1945), represents a clear return to infinity and a case of *petitio principii* because it ends up assuming what needs to be proven. In conclusion, induction still lacks logical foundation. Bertrand Russell (1983), faced with so much controversy, argued that we must «pragmatically take it for granted that the inductive procedure, with appropriate caution, is admissible» (p. 73).

Strawson (1952) considers that justification for induction should not be sought in the same way that justification for the legality of one's own country's law should not be demanded, since the idea is that the law is what justifies the legality of everything else. Similarly, asking for a justification for induction is asking for an explanation of one of the standards used to determine whether ideas about the world are adequate or not (Okasha, 2007).

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About Hempel's paradox

It is necessary to state that, as Hempel himself argued, according to Łukowski (2011), although it may seem misleading to us that a «white shoe» confirms the proposition «all crows are black,» logically this is adequate, even though there are practical circumstances that try to dissuade us that this cannot be the case. For Hempel, the reason this is seen as a paradox is our imperfect intuition; logic must be respected.

For his part, Sainsbury (1988) argues that Hempel's paradox disputes two rational principles:

1. E1: If it can be known *a priori* that two hypotheses are equivalent, then any data that confirms one confirms the other.
2. G1: A generalization is confirmed by any of its instances.

And it is problematic to reject both principle E1 and G1. That is where the issue lies.

Blasco and Grimaltos (2004), based on the concept of abduction, offer a short but elegant solution. They argue that the generalization «all crows are black» can explain why this crow is black, but neither that generalization (R) nor its transpose (R-) can explain why this shoe is red. For that reason, the red shoe cannot be considered evidence that «all crows are black.»

On the other hand, Bunge (2007) wrote about Hempel's raven paradox:

This paradox is resolved when we realize that anyone interested in crows will begin by restricting their universe of discourse to birds, so that they

will consider an encounter with a blonde [woman] irrelevant to their interest. In other words, since the ultimate reference class of «All crows are black» is the class of birds, only data about birds are relevant to the hypothesis in question. Any reasonable theory of reference that harmonizes with the way scientists treat predicates could have avoided the avalanche of publications generated by this riddle (p. 160).

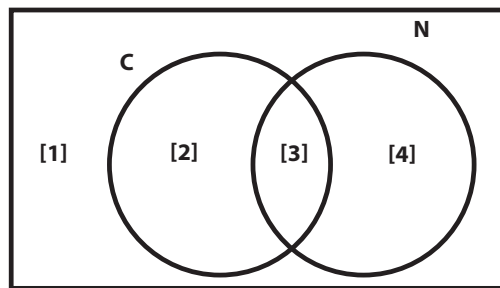
Bunge (2007) argues that a robust theoretical framework limiting scientific inquiry will prevent the search for negative objects such as «non-black things» or «non-crows.» If crows are not sought, then other types of birds must be sought. In this way, non-crows would not be understood as anything else that meets the condition of not being crows, for example, horses, since the theoretical framework is not referring to those animals.

Mosterin and Torreti (2010) consider the following:

The mere observation of a black crow does not even suggest that they are all black. Only a representative sample of the world's crows, which are black without exception, could give weight to $(\forall x) (Cx \rightarrow Nx)$. The same weight would be given, incidentally by a representative sample of all things in the universe that are not black, if that sample did not contain a single crow. Since such things are more abundant and considerably more varied than crows, an adequate sample of the former is, of course, much easier to collect than a sample of the latter (p. 453).

What is debatable for these authors is the large difference between the number of «crow» entities and the number of «non-black» entities. On the same subject, Rescher (2001) argues that this situation can be better understood by analyzing it with Venn diagrams (where C is the class of crows and N is the class of black objects).

Figure 1
Crows and black objects



Source: taken from Rescher (2001, p. 225).

On the one hand, the expression «all C is N» has the Boolean formula $C = \Phi$, which means that from class C (i.e., [2] and [3]), part [3] must be removed so that [2] is considered the empty class. On the other hand, the expression «all non-N is non-C» has the Boolean formula $C = \Phi$, which means that from the class non-N (i.e., [1] and [2]), the area in common with C must be found so that [2] is considered the empty class. When looking at this graphically, one realizes the issue, because if there are thousands of things that are C ([2] and [3]), there must be billions of things that are not N ([1] and [2]), and as Rescher (2001) states: «Someone who gives us a verified black crow has made a modest but not trivial contribution to the whole verification project. But the contribution of a white tennis shoe is insignificant» (p. 226). In that sense, «it is simply false that the evidentially confirmatory contribution of black crows and white shoes is the same» (p. 226).

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According to Clark (2009), the idea is that it is not true that the best way to verify that «all A is B» is only by looking for entities A that are B. If one wants to prove that «all vultures live outside Lima,» sightings of these birds outside Lima (for example, in areas with very similar climatic characteristics) actually tend to refute the same claim, because if there are so many vultures outside Lima and in areas with similar climates, it is likely that there are also vultures within Lima. Therefore, confirmation should not be reduced to a simple accumulation of favorable cases. It is important to consider the context, as it conditions our search. For example, if we know that vultures feed on carrion, then we can look for them in restaurant garbage dumps, but this would not yield a great find, and we might even believe that vultures also prefer dirt to hygiene. Therefore, it is more important to try to look for these birds in mountains, hills, beaches, etc., as this would indeed be an enriching find.

For López Astorga (2008), this puzzle can be addressed by resorting to Wason's selection task (1966, 1968). According to this cognitive psychologist, people tend to look for cases that reinforce or confirm rules rather than try to refute them. In this sense, if it is said that «behind the card with a vowel there is an even number and vice versa,» people tend to look for vowels or even numbers, but they do not start by searching for consonants or odd numbers. The latter is rare. Thus, Hempel's paradox can be dismantled because people do not usually think in negative concepts, but rather reason based on positive ideas.

Likewise, Sperber and Wilson (1986) have constructed a theoretical framework, the theory of relevance, from which it can be asserted that the human mind naturally prioritizes relevance. Information is irrelevant if it

does not generate cognitive effects useful for analyzing novel beliefs. On the other hand, information is relevant when it serves as support for generating cognitive effects that lead to accepting or rejecting new beliefs. Furthermore, the less cognitive effort involved in this process, the more relevant the information is. Thus, naturally, we do not usually think about things that are not black or things that are not crows, as this requires too much effort and, moreover, does not help us to generate immediate cognitive effects. Therefore, Hempel's paradox fails in its attempt to present as equivalent the relevance of «all S is P» and «all non-P is non-S» as well as the cognitive effort involved in analyzing both the first generality and the second (the result of applying transposition), and this is what is questionable.

Quine argues something similar, but instead of relevance, he appeals to the idea of naturalness, according to Sorensen (2007):

Quine [regarding Hempel's paradox] rejects Nicod's criterion. He restricts confirmation to hypotheses that use terms belonging to natural classes. Consequently, he denies that a white handkerchief confirms that «everything that is not black is not a crow» (p. 281).

Instead of stating whether it is relevant or not, Quine merely says that «not a raven» or «not black» is not a class that comes from nature. Similarly, Stemmer (1977) seeks to relate generalizations to the usefulness they provide to humans as a species for the purpose of survival. Thus, he proposes that generalizations are adequate insofar as they have allowed living beings to survive. In this sense, neither non-black nor non-crow can be considered important for ensuring the evolution of species. This implies questioning Nicod's criterion in order to justify it in another way.

About Goodman's paradox

Blasco and Grimaltos (2004), from the perspective of abduction, assert that if something is defined as *verdul* as long as «it is green if examined before the year 5000 AD or blue if examined after,» that is, x is *verdul* $\leftrightarrow (p \vee q)$, this formulation makes it impossible to explain anything, because what is the point of asking about the cause of a disjunction? Thus, if we assume that «all emeralds are green,» we can explain the fact that this emerald is green, but the same is not true for «all emeralds are *verdul*,» because the property *verdul* cannot be considered an effect. A cause can produce p or it can produce q (sometimes p and sometimes q), but it cannot produce $p \vee q$. Thus, this paradox is rejected on grounds of the logical formulation of the concept of *verdul*. Since this concept hides a

disjunction and no effect makes sense if expressed in this way, then the predicate *verdul* cannot be considered a legitimate effect.

On the other hand, Bunge (2007) wrote:

This «paradox of confirmation» [...] was never taken into account by crystallographers, as they knew that emeralds cannot change color spontaneously and overnight, just as lions cannot metamorphose into gazelles. The reason is that the color of emeralds is determined by their chemical composition. If this changes, then the crystal ceases to be an emerald. The logical inference is as follows:

For all x , x is an emerald if and only if x has composition C .

For all x , if x has composition C , then x appears green in white light.

∴ For all x , if x is an emerald, then it appears green in white light.

The conclusion, initially an empirical generalization, has been derived from higher (and deeper) level hypotheses. Therefore, it has more than just empirical support consisting of countless and often erroneous observations of emeralds. Moral 1: Empirical generalizations are not typical of science. Moral 2: Empirical evidence is not all that exists for science. Moral 3: The *Verdul* paradox is a pseudo-problem (p. 161).

It can be said that one should not generalize in such a simplistic way based on emeralds examined before time T without considering additional relevant information. In other words, it is not enough to know that such an emerald will behave in such a strange way by changing its color on a certain date. It is necessary to know more details about this type of behavior. The same is true when youth preferences are generalized to the entire population. For example, if it is said that because young people are fans of Taylor Swift's music, then the entire population is, this is a mistake because it is known that age or generational differences influence musical tastes. Therefore, the mere accumulation of cases that favor a certain generalization is irrelevant if the necessary contextual information is not considered. The important thing is to know whether or not the cases examined are representative (Clark, 2009).

Mosterín and Torreti (2010) have another opinion: «According to Goodman, the general preference for 'all emeralds are green' over 'all emeralds are verdul' is because the green/blue pair of concepts is much more deeply rooted [...] than verdul/azerde» (p. 452). For Ernst (2005), Salmon's (1953) solution, although questionable because it does not resolve the problem of the continuity of properties observed in the future, provides clues as to what happens with Goodman's paradox. According to



Salmon, the reference of terms that allude to experience is determined by convention through the search for similarities between positive and negative cases. For example, the color «red» is established by convention by distinguishing between red and non-red things. The same does not apply to *green*, as it is difficult to distinguish between *green* things, i.e., green before T or blue after T ($p \vee q$), and *non-green* things, i.e., neither green before T nor blue after T ($\sim p \vee \sim q$). Therefore, it is a misleading term with unclear reference.

According to San Bruno (2005) and Pietrini (2013), Goodman's paradox can be overcome by considering that an important feature of the predicates used by science is that they allow predictions to be made about future situations. This is known as «projectability.» For example, if it is stated that «all metals expand with heat,» it can be predicted that a metal will expand when it reaches that temperature; i.e., given regularity in nature, it is feasible to expect certain situations given certain initial conditions. This does not happen with *verdul* because when the date T to which the definition of *verdul* is tied arrives, it can be stated that the emerald seen at T will be green, as well as that it will be *verdul*. This imprecision does not occur with the predicates selected by science. It should be noted that this form of solution is linked to pragmatic and contextual considerations rather than definitive logical reasoning.

The use of language also explains why certain words are more suitable than others for classifying the world. Sorensen (2007) writes, considering Aristotle and Quine:

In opposition to a purely conventional view of language, Aristotle thought that part of our vocabulary refers to these natural classes. Quine considers this particularly plausible in light of evolutionary theory. [...] Part of scientific progress consists in creating a vocabulary that more closely matches natural divisions. We instinctively prefer «green» to *verdul* because «green» comes closer to sectioning nature according to articulations (2007, p. 280).

In relation to the above, it can be said that the world has natural divisions and that language must be based on these divisions in order to ensure the success of those who investigate the world. Thus, *verdul* would not be a good example of a natural division and, therefore, is doomed to disuse. The moral of this paradox lies in accepting that induction does not depend so much on the number of confirmed facts (observed evidence) but also on the predicates (or concepts) involved. According to Rescher (2001): «The thesis, with its problem that evidence depends only on the



quantity (and not the quality!) of the available instances, is the most vulnerable argument in this case» (p. 230). There is a weakness in the thesis that states that the available observational evidence speaks equally in favor of all emeralds being green and all emeralds being *verdul* (considering that, in terms of observational evidence, each is confirmed—and confirmed equally—by exactly the same cases).

Thus, it can be argued that the issue at stake here is that in science, not only the quantity of evidence is important, but also the quality of that evidence. For example, one could collect evidence in circumstances that are too favorable or too unfavorable without being aware of it. Perhaps the environment itself alters variables that are not taken into account in the research but that influence the work; perhaps the instruments used for observation are not sufficiently calibrated; perhaps the researcher's obsession with a certain theory is forcing him or her to ignore plausible evidence, etc. These biases are sometimes not detected by the researcher himself or herself.

Now that we have seen the different ways of approaching Hume's problem, as well as Hempel's and Goodman's paradoxes, it is time to specify precisely what types of thinking skills can be developed by analyzing these challenges.

Critical thinking skills reinforced after this research

For Lipman (2016), critical thinking means having the ability to express opinions, criticize, and make decisions. The important thing is for individuals to get used to looking for reasons, questioning what seems inconsistent, and understanding that each position in a debate also depends on a specific context that gives it meaning. It should be mentioned that, like Mora (2023), it is considered possible to reinforce critical thinking through discussion of paradoxes in general, although in this case, the work focuses on the problem of induction and confirmation paradoxes. The following numbering is based on Rosas *et al.* (2018), who have listed a series of skills that serve to develop critical thinking:

1. *Analyzing the value of statements.* The value of statements such as «everything that is not black is not a crow» and «every emerald is green» has been discussed, and in general, an attempt has been made to give the analysis of these confirmation paradoxes its rightful place.
2. *Classify and categorize.* Types of evidential support have been classified. Thus, it has been argued that finding a black crow



- supports our hypothesis in a different way than finding a white shoe does. Categories such as generality, evidence, confirmation, induction, projectability, etc. have been discussed.
3. *Constructing hypotheses.* Hypotheses have been proposed that the human mind tends to prioritize relevance and also that certain specific types of generalizations have enabled the survival of our species.
 4. *Defining terms.* The problem of defining the term *verdul* or *azerde* has been studied.
 5. *Developing concepts.* Concepts such as the idea of natural classes or projectability have been developed.
 6. *Discover alternatives.* Various authors have been cited who propose different ways of addressing these paradoxes. For example, Salmon, Quine, Bunge, Rescher, Wason, etc.
 7. *Deduce inferences from hypothetical syllogisms.* In the case of the *verdul* paradox, Bunge proposed an inference of this type by connecting the chemical composition of emeralds with their color.
 8. *Find underlying assumptions.* The assumption that the same evidence can confirm law A and law B with equal importance, these being logically equivalent to each other, has been discussed.
 9. *Formulate causal explanations.* It has been argued that the preference for «green» over *verdul* is because the former is more deeply rooted in human experience than the latter. The same is true of the divisions that exist in nature, which Quine calls «natural classes.»
 10. *Formulate critical questions.* Questions have been asked such as: Why does not even a million pieces of evidence in favor definitively prove a generality? Why does the application of logic seem to fail in the case of Hempel's paradox? Is *verdul* a reliable predicate?
 11. *Generalize.* The idea of “uniformity of nature” has been generalized to relate it to every situation where there is some regularity.
 12. *Give reasons.* Reasons have been given to assert that science deals not only with generalizations but also with additional data on context or a theoretical framework that limits the application of certain laws.
 13. *See the part-whole and whole-part connections.* Connections are explored between the chemical composition of emeralds and their apparent color with the law that supports the existence of *green* emeralds, as well as the link between generalization and particular confirmatory instances.



14. *Make connections and distinctions.* Hume's problem has been connected to the paradoxes of confirmation, and a distinction has been made between the quantity and quality of available instances.
15. *Anticipating consequences.* Emphasis has been placed on anticipating consequences with regard to the acceptance of different generalities based on the same empirical evidence, as in the *verdul* paradox.
16. *Working with analogies.* The divisions present in nature have been compared with those that the butcher knows how to identify when preparing his merchandise.
17. *Working on consistency and contradictions.* In studying all these problems and paradoxes, the need to combat the appearance of contradiction that exists in all cases in order to maintain a certain theoretical consistency has been observed.
18. *Detect and eliminate fallacies.* In relation to Mill's proposal to justify induction based on the principle of uniformity of nature, the fallacy of begging the question was detected.
19. *Recognize contextual aspects of truth and falsehood.* In the case of the *verdul* paradox, the idea of projectability is considered a contextual and pragmatic solution. In relation to the same paradox, it is assumed that the truth of a generalization depends not only on the quantity of evidence supporting it but also on its quality. Likewise, in the case of the problem of induction, Russell recommended believing in the truth of induction for pragmatic reasons.
20. *Recognize the independence of means and ends.* A distinction has been made between Hume's problem of induction, which consists of starting from particular instances (means) to conclude universal generalizations (ends), and the paradoxes of confirmation, which start from generalizations (means) to find favorable evidence in this or that particular instance (ends).
21. *Make series.* Regarding Hume's problem, an attempt was made to justify induction based on the principle of uniformity of nature, but instead of stopping the investigation, the evaluation continued to determine whether this principle had another foundation. The series sought to determine some ultimate foundation. However, it was later noted that this principle was justified by another induction.
22. *Take all considerations into account.* In the case of the paradoxes studied in this work, the factors (such as Nicod's criterion,

equivalence condition, rule, and prediction) that influence their development have been problematized.

Conclusions

Induction, so useful to science, leads to a conclusion of a probable nature. Inductive logic seeks to design criteria of correctness for inductive inferences, although almost all types of induction have flaws. However, if inductive logic were to succeed in establishing these criteria, the generation of scientific knowledge would be well-founded. Induction by simple enumeration, which consists of observing many particular cases to formulate probable general conclusions, is questioned by Hume's problem. Hume's problem of induction calls into question the justification of valuable inductive inferences, both for science and for everyday life. Probabilistic inference, although it also has its risks, is the constant that characterizes all inductive reasoning.

Hempel's paradox questions the idea of confirming general hypotheses through particular instances, as well as the application of logic to scientific inferences. The discussion regarding the rational principles E1 (if it can be known a priori that two hypotheses are equivalent, then any data that confirms one confirms the other) and G1 (a generalization is confirmed by any of its instances) highlights the complexity of the idea of confirmation, which invites us to rethink the relationship between evidence and general hypotheses. Goodman's paradox questions the link between verified evidence and the justification of universal generalizations. This paradox highlights the complexity of proposing definitive criteria for confirming particular inductive hypotheses. For this reason, ideas such as «projectability» have been proposed, and it has been suggested that the relationship between the internal coherence of theories and their predictive capacity should be strengthened.

The aim of this paper was to highlight how the different solutions (or dissolutions) proposed develop certain critical thinking skills. Reflecting on the problem of induction and the paradoxes of confirmation makes this possible. For example, one must avoid falling into false generalizations, it is important to be open to rectifying the theory when necessary, and one must know how to solve problems creatively in order to overcome all the limitations and contradictions present. Critical thinking (and scientific reasoning) becomes important when, as a result of studying the problem and the paradoxes mentioned above, statements

are analyzed, evidence is classified and categorized, and hypotheses are constructed and terms are defined in a rigorous manner. The quality of evidence is as relevant as the quantity, since factors such as context, the care taken with measuring instruments, and the debatable objectivity of the scientist can influence the results achieved. We need to learn to anticipate the consequences of accepting certain ideas, as well as to detect fallacies. Likewise, we must recognize the complex relationship between means and ends and seek solid foundations for the principles that underpin our accepted inferences.

It is suggested that for future research, these paradoxes be discussed with philosophy students or within epistemology courses. It would be important to know how students respond to such challenges and to measure these results quantitatively. The idea is for students to recognize which critical thinking skills can be applied to solve these problems. In this regard, at the beginning of the educational process, a table would be provided asking students to identify the critical thinking skills that motivate the development of such paradoxes. Then, each week, with the help of some expert texts related to the subject, the critical thinking skills that have been developed in this regard would be discussed. And in the last week, a test would be given in which students would be asked to weigh the different solutions and, if possible, propose their own original position. Finally, the table would be presented again so that students could identify the thinking skills. If they are able to recognize these skills, learning has taken place. If not, the experience could be improved and repeated.

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THE PEDAGOGY OF TEXTUAL GENRES
AND CURRICULAR SCAFFOLDING AS A DIDACTIC MEDIATION
FOR THE COMPREHENSION OF PHILOSOPHICAL TEXTS

La pedagogía de géneros textuales y el andamiaje
curricular como una mediación didáctica
para la comprensión de textos filosóficos

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Abstract

To make philosophical texts more accessible to middle and high school students, they must be simplified and clarified linguistically: the terms used to teach the subject should not consist of long, complicated sentences or have complex grammatical structures that make them difficult to understand. This article presents the results of an action research project in which a teaching sequence was designed and developed based on the Sydney School's Pedagogy of Textual Genres (PGT) and the Curricular Scaffolding proposed by Bruner. The proposal was implemented in a school in the Caribbean region of Colombia with a socioeconomically vulnerable population, using Plato's *Allegory of the Cave*, a work frequently read in secondary education, as the central text. The findings show that the integration of PGT and curricular scaffolding promoted students' literal and inferential comprehension by enabling them to identify discursive genre, analyze semantic structures, and recognize lexical-grammatical resources. The experience also showed that teacher mediation and student participation were decisive factors in making philosophical reading an accessible and meaningful practice. This study confirms the potential of PGT as a strategy for democratizing access to philosophy in secondary education, overcoming the tendency toward rote memorization and opening spaces for critical reflection.

Keywords

Philosophy Teaching, Educational Sciences, Philosophical Text, Didactic Mediation, Reading, Curriculum.

Resumen

Para hacer más accesibles a los estudiantes de escuela media y secundaria los textos filosóficos, estos deben ser simplificados y aclarados lingüísticamente: los términos empleados para la enseñanza de la asignatura no deben contener oraciones largas y complicadas ni estructuras gramaticales complejas que dificulten su comprensión. En este artículo se muestran los resultados de una investigación-acción donde se diseñó y desarrolló una secuencia didáctica según la pedagogía de los géneros textuales (PGT) de la escuela de Sidney y el andamiaje curricular propuesto por Bruner. La propuesta se aplicó en un colegio de la región Caribe colombiana con población socioeconómicamente vulnerable, utilizando como texto central la *Alegoría de la caverna* de Platón, obra frecuentemente leída en educación media. Los hallazgos muestran que la integración de PGT y andamiaje curricular favoreció la comprensión literal e inferencial de los estudiantes, al permitirles identificar el género discursivo, analizar estructuras semánticas y reconocer recursos léxico-gramaticales. La experiencia evidenció, además, que la mediación docente y la participación de los estudiantes fueron factores decisivos para convertir la lectura filosófica en una práctica accesible y significativa. Este estudio confirma el potencial de la PGT como estrategia para democratizar el acceso a la filosofía en la educación media, al superar la tendencia a la memorización mecánica y abrir espacios para la reflexión crítica.

Palabras clave

Enseñanza de la filosofía, ciencias de la educación, texto filosófico, mediación didáctica, lectura, currículo.



Introduction

Philosophy has been highlighted by UNESCO (2009) as essential in the development of critical thinking, key skill for facing the challenges of our society. From this perspective, Nagel (1995) emphasizes that learning philosophy helps students become more tolerant and critical of different perspectives. Corcelles and Castelló (2013) relate this learning to elements of critical thinking such as problematization, conceptualization, and argumentation. Similarly, Echeverría (2004) points to thinking skills promoted by philosophy such as the production of good reasons, examples, and counterexamples, or the discovery of diverse worldviews (as well as contradictions between them).

In Colombia, Article 31 of the General Education Law (Law 115 of 1994) defines philosophy as an essential area in secondary education, which has led to multiple pedagogical and methodological interpretations. Over the years, the teaching of this discipline has oscillated between conceptions that emphasize its historical stages (history of ideas) and specific philosophical thinking skills, with guidelines such as those established by UNESCO (2011) and developed in Colombia in the document entitled «Pedagogical guidelines for the teaching of philosophy in secondary education» (MEN, 2010). This discussion highlights the relevance and topicality of the subject, as tensions still persist between official regulations and everyday pedagogical practices.

Despite these advances, the teaching of philosophy in Colombia presents significant challenges (Coppolecchia, 2012; Paredes & Carmona, 2019), especially in the practical application of pedagogical guidelines that often remain ambiguous or insufficient to effectively guide teaching practice. This challenge is complicated by changes in the structure of the state exam for Colombian high school students (SABER 11 tests), where the area of philosophy was combined with Spanish in the critical reading assessment test (ICFES, 2013). This change has generated a discussion about the role of philosophy in the curriculum, questioning whether its integration has instrumentalized the discipline, reducing it to a tool for reading comprehension rather than a field of study that contributes to critical thinking and ethical reflection.

The central problem addressed by this study is that secondary school students encounter serious limitations in understanding original philosophical texts, whose linguistic and conceptual complexity often leads teachers to replace them with simplified school textbooks. This practice, although intended to facilitate comprehension, reduces young

people's opportunities to interact with philosophical thought in its most original forms (Velásquez, 2002; Prada Londoño, 2012). Thus, the reading of philosophy is restricted to a literal level, without reaching the critical and reflective interpretation that characterizes the discipline.

To address this challenge, various pedagogical strategies have been developed that focus on students' experiences and concerns. Nava Preciado (2022) suggests that allowing students to discover the relevance of philosophical questions in their own lives can foster a philosophical attitude that enriches their understanding and appreciation of philosophical knowledge. Furthermore, in order to adapt philosophical reflection to the specific realities of Latin America, authors such as Paredes and Carmona (2019) have developed pedagogical guidelines that advocate for a decolonization of philosophical thought in the classroom. These approaches seek to move away from Eurocentric paradigms and foster critical thinking that is more relevant to students in the region, directly addressing the needs and challenges of their sociocultural contexts.

Rangel Díaz (2020) argues that the emphasis on the uncritical reproduction of philosophical ideas prevents these subjects from promoting reflection and critical thinking. Similarly, García Guzmán (2019) stresses the importance of linking philosophical knowledge to students' situated experience, to prevent teaching from being limited to mere theoretical reproduction.

A key process in philosophical teaching and reflection is the selection of texts. These are generally considered too complex for students, leading teachers to opt for school guides rather than the original disciplinary texts (Pinto *et al.*, 2011). This choice seeks to facilitate understanding, given that students often find it difficult to understand and unravel the ideas represented in these texts. Similarly, Coppolecchia (2012) and Monserrat Molas (2010) point out that philosophical communication is elusive and manifests itself in various genres, which adds a layer of complexity. Additionally, Prada Londoño (2012) argues that philosophical texts are often not aimed at students, who lack the ability to follow the reasoning necessary to fully understand these texts.

However, Velásquez (2002) suggests that the main problem in teaching philosophy does not lie in the texts themselves, but in how teachers use them without fostering a critical attitude in students. Critical reading skills are fundamental to learning philosophy. Rangel Díaz (2020) highlights the importance of reading as a tool for developing critical thinking, which is essential for discussion and the adoption of informed positions. Paredes and Carmona (2019) emphasize that fostering critical



thinking is a fundamental task of philosophy, allowing students to generate autonomous reflections. This idea is consistent with Adorno's (2020) proposal for an educational project focused on emancipation and self-determination «in all, and truly all, aspects of our lives» (p. 125).

Ramírez and Bonilla (2019) highlight that the teaching of philosophical topics depends significantly «on the teacher's interpretation of the curriculum, as well as on their degree of specialization and knowledge of the discipline» (p. 96). This process must be led by the teacher from a disciplinary standpoint that facilitates the understanding of philosophical writings in order to enrich students with the ideas contained therein. The authors emphasize the importance of treating «the teaching of philosophy as a specialized discourse that will help build intertextual networks around the discipline's own knowledge structure» (p. 106).

The effectiveness of this specialized approach is compromised when the teaching of reading is not considered transversal to all disciplines. Many mistakenly believe that the development of reading skills is limited to language and does not extend to other fields of knowledge, which has a direct impact on the learning of philosophy. Fernández Martín (2020) and Petit (2003) argue that teachers of other disciplines often neglect this crucial task, which is why they emphasize the need for teachers to develop a teaching approach that integrates both disciplinary mastery and discipline-specific reading skills.

Thus, the idea to be defended in this article is that textual genre pedagogy (TGP) and curricular scaffolding are strategies capable of overcoming the limitations of literal comprehension and enabling access to a critical reading of philosophical texts. When analyzing the pedagogical needs in the teaching of philosophy, it is essential to consider how these can be met by TPG, especially with regard to the teaching of reading.

The main objective of this study is to design and implement a teaching sequence that promotes literal and inferential comprehension of a classic philosophical text (Plato's *Allegory of the Cave*) in tenth-grade high school students. Hence the importance of articulating strategies that not only allow access to philosophical ideas but also develop autonomy and critical positions regarding the content.

PGT has been noted for its implementation in various educational contexts and areas of knowledge. The «reading to learn» (LPA) methodology, based on PGT, has proven effective in teaching science and languages, strengthening literacy and oral communication skills (Herazo *et al.*, 2021). These findings support the relevance of exploring its application in the field of philosophy, an area that has been little researched in Colombia.

The structure of the article is as follows: first, the pedagogical and linguistic foundations of PGT and curricular scaffolding are presented; second, the action research methodology used is described; third, the results obtained with the implementation of the teaching sequence are presented; and finally, the conclusions and projections of this experience for the teaching of philosophy and teacher training are discussed.

Fundamentals of PGT and curricular scaffolding

Reading philosophical texts presents particular challenges for middle and high school students due to the frequent use of abstract language, complex argumentative structures, and high conceptual density. These characteristics often make it difficult for students to identify the central ideas and establish logical relationships in the discourse. As some studies point out, these difficulties are not only due to the intrinsically complex nature of the texts, but also to the absence of pedagogical strategies that support their approach. Thus, without adequate didactic mediation, comprehension is reduced to the literal, preventing critical interaction with the content, which confirms Alarcón's (2024) warning that philosophy runs the risk of remaining pure theory if it is not articulated with pedagogical practices that continue it in the educational task.

PGT: between language, culture, and learning

This pedagogy has its origins in systemic functional linguistics (SFL), developed by Halliday and later enriched by Martin, Hasan, and Matthiessen (Unsworth, 2000). This approach, with applications in semiotics, grammar, and discourse analysis, has proven particularly useful in educational settings, as it facilitates understanding of how language structures and transmits knowledge. As Acevedo *et al.* (2023), point out, the potential of SFL lies in its ability to link textual production with the sociocultural contexts in which it is generated.

Within this framework, PGT is conceived as an educational approach to the development of reading and writing, recognizing that textual genres are social practices that organize communication and learning. Martin (1992) defines them as «social activities with a schematic structure, directed toward specific goals» (p. 505), and in 1997 he emphasizes their sequential nature, as they reflect social processes within a culture. Rose and Martin (2012) and Moss (2016) agree that knowledge does not circulate in isolation, but through language and situated interactions.



Beyond this linguistic dimension, PGT should be understood as a cultural approach. Along these lines, Esparza Urzúa (2024) draws on Cassirer and Natorp to show that all educational practice is inseparable from culture and that symbols (language, myth, art, science) are pedagogical mediations that shape experience. This reinforces the relevance of PGT in the case of philosophy, given that philosophical texts are not mere vehicles of information, but symbolic forms that require guided learning to be understood in all their complexity.

PGT is implemented through a teaching and learning cycle structured in three phases: *deconstruction*, in which a model text is analyzed to understand its purpose, structure, and linguistic resources; *joint construction*, in which teachers and students produce a new text of the same genre in a guided manner; and *independent construction*, in which students apply what they have learned and produce texts autonomously (Martin and Rose, 2005; Fernández & Moyano, 2021).

This cycle has proven effective in multiple contexts because it allows for gradual scaffolding that takes students from literal comprehension to inferential and critical levels. Benítez *et al.* (2021) highlight its potential to strengthen disciplinary literacy, while García Parejo and Blanco (2020) link it directly to academic writing.

Adaptations: the PBL methodology

The PGT teaching-learning process has also been adapted to various educational contexts, notably the LPA methodology (Rose, 2004; Rose & Acevedo, 2006). This methodology reinforces scaffolding in reading and writing through a cycle of classroom interaction based on: preparation, response, evaluation, and elaboration. It includes three key stages: *preparation for reading*, in which the text is contextualized and its structures are identified; *detailed reading*, which promotes comprehension at the literal, inferential, and critical levels; and *preparation for independent writing and rewriting*, in which students produce new texts by applying the models they have worked on.

Benítez *et al.* (2021) and Rose and Acevedo (2006) show that this process enhances autonomy in academic writing, consolidating skills that transcend the discipline of language. From this perspective, PGT is not limited to teaching text formats, but rather encourages a «dialogue» between the reader and the document being read, as emphasized by Sánchez Chévez (2014). Here, the student is not reduced to decoding, but rather

interacts with the text through advanced cognitive processes that enable critical thinking.

Curricular scaffolding: from theory to educational practice

The notion of scaffolding has its roots in Vygotsky's (1987) theory of the zone of proximal development (ZPD), according to which learning occurs optimally when students are faced with tasks that, although initially beyond their capabilities, can be solved with support. Bruner (1983, cited in Walqui, 2006) developed this idea by conceptualizing scaffolding as progressive accompaniment that gradually transfers responsibility to the learner.

In this study, scaffolding is understood in curricular terms, articulating three levels: macro, meso, and micro. The *macro level* corresponds to the general guidelines (PEI, study plans, curriculum grids) that define the structure and sequence of learning (Posner, 2005; Rosado Mendinueta, 2020). On the other hand, the *meso level* focuses on the specification of objectives, resources, and methodologies that respond to the institutional context (Fernández, 2020). Finally, the *micro level* is materialized in classroom plans, teaching units, and assessments, where direct work with students is defined (Rosado Mendinueta, 2020).

The usefulness of this ecological view lies in recognizing—as Barraza Niebles (2023) points out, based on Bronfenbrenner (1977)—that learning does not depend on a single factor, but on interrelated systems. Applied to the teaching of philosophy, this approach implies that reading comprehension should be considered a cross-cutting theme that is not exclusive to the language area.

Within this framework, the competencies specific to philosophy—critical, creative, and dialogical (MEN, 2010)—are strengthened when the curriculum is organized as a scaffolding. This is related to what Agüero (2022) proposes: accepting a norm means accepting a linguistic and institutional game, which shows that philosophical learning does not occur outside institutions, but within them. Therefore, curricular scaffolding in philosophy not only structures content, but also constitutes the student as a member of a community of thought.

Connection between PGT and curricular scaffolding

The convergence between PGT and curricular scaffolding lies in the fact that both strategies recognize that learning philosophy involves more than memorizing concepts: it involves participating in discursive and institutional practices. As Alarcón (2024) argues, philosophy is a conti-



uation of education by other means and requires didactic mediations that allow students to tackle complex texts without stripping them of their conceptual density. Similarly, Esparza Urzúa (2024) shows that education can only be understood from its cultural and symbolic insertion, and Agüero (2022) emphasizes that it is institutionalized language that enables the constitution of the philosophical community.

Methodology

This study is an action research project, understood as a participatory and reflective process in which teachers and researchers collaborate to transform educational practice while generating knowledge (Kemmis & McTaggart, 2005). This approach was chosen in response to the need to articulate theory and practice in the context of philosophy teaching, so that understanding of the texts and pedagogical transformations emerge from the situated experience. As Alarcón (2024) argues, theory should not be an external framework but a horizon that is realized in the very act of teaching and learning.

The methodological design adopted a cyclical character, consisting of phases of diagnosis, planning, action, observation, and reflection (Burns, 2010; Díaz Bazo, 2017). This scheme allowed for continuous adjustment of the pedagogical proposal according to the progress and difficulties observed in the classroom, ensuring permanent feedback between the teaching objectives and the real conditions of philosophical learning. Thus, the iteration between planning and action was not a mechanical procedure, but rather a reflective strategy that enabled the progressive refinement of teaching strategies.

The research was conducted in a co-educational, private, publicly subsidized educational institution located in the southeastern part of Barranquilla (Atlántico, Colombia). Twenty-two tenth-grade students and a teacher-researcher in charge of the Philosophy course participated, who led the design and implementation of the pedagogical proposal in constant dialogue with the research team. Informed consent was obtained from administrators, teachers, and students, ensuring confidentiality through the use of pseudonyms and voluntary participation, in accordance with the ethical guidelines for educational research (Cohen *et al.*, 2018).

The focus of the research process was the textual analysis of Plato's *Allegory of the Cave*, approached through LSF (Halliday & Matthiessen, 2014). This approach allowed us to examine the comprehensibility of

the text from its lexical-grammatical structure and semantic potential, which was key to designing mediation strategies that would facilitate students' access to philosophical thinking. The selection of this text was based on its philosophical centrality and the possibility of showing how a text of high conceptual density can be approached through PGT and curricular scaffolding.

Information was collected through a coordinated set of qualitative strategies aimed at triangulating evidence and strengthening the validity of the findings. Participant and non-participant observation allowed the dynamics of the classes and discursive interaction to be recorded in real time (Lüdke & André, 1986). Complementarily, autoethnographic techniques and retrospective analysis of audiovisual recordings were used to deepen the understanding of the processes of teacher mediation and collective construction of meaning (Ellis *et al.*, 2011). Likewise, the analysis of the texts produced by the students provided information on the development of their interpretive and argumentative skills (Bowen, 2009; Merriam & Tisdell, 2016). Finally, the teacher-researcher's field diary served as a reflective device that allowed for the documentation of tensions, adjustments, and learnings that arose during the intervention (Schön, 1992; Badia & Becerril, 2016).

The data collected served as the basis for the design and implementation of a teaching sequence based on PGT and the principles of curricular scaffolding (Rose & Martin, 2012; Benítez *et al.*, 2021; Rosado Mendinueta, 2020). This sequence integrated macro-curricular decisions, such as the selection of the philosophical text and its learning objectives; meso-curricular decisions, related to the organization of activities and formative assessments; and micro-curricular decisions, focused on classroom planning and mediation tools. The process was carried out in twelve virtual sessions using Zoom and Google Meet, which allowed for flexible and collaborative interaction among participants.

The implementation followed a progressive learning sequence inspired by the principles of PGT. In the first stage, textual deconstruction was carried out, during which students analyzed, with the teacher's guidance, the structure of the philosophical text, its discursive genre, the predominant argumentative features, and the lexical-grammatical resources used by the author. This exercise allowed them to identify the internal organization of the discourse and recognize the linguistic mechanisms that construct its philosophical meaning, which facilitated their approach to a text of high conceptual density such as *Allegory of the Cave*.

Subsequently, joint construction was developed, a phase in which learning was consolidated through interaction between teacher and stu-



dents. Through critical reading activities, underlining key terms, note-taking, guided discussion, and collaborative rewriting, participants collectively reconstructed the meaning of the text. At this stage, the teacher played a fundamental role as a mediator of the process, guiding reflection on language and promoting the co-construction of philosophical knowledge in an environment of dialogue.

Finally, the sequence culminated in independent construction, aimed at assessing the degree of appropriation achieved by the students. At this point, participants developed their own interpretations and written productions, autonomously applying the discursive strategies worked on in the previous phases. This conclusion allowed for the transfer of learning to be evident, as students were able not only to understand the philosophical ideas addressed, but also to express them with greater clarity and coherence in their own texts.

This sequence allowed for the articulation of the curricular scaffolding—which ensures coherence between the macro, meso, and micro levels—with the PGT—which offers the linguistic tools necessary to address philosophical thinking from the communicative experience of the classroom—(Esparza Urzúa, 2024; Agüero, 2022).

Finally, the evaluation of the process focused on assessing the overall understanding achieved by the students and the effectiveness of the teaching strategies implemented. This exercise in reflective analysis made it possible to identify progress, limitations, and projections for improvement for future iterations of the research cycle (Kemmis & McTaggart, 2005), thus consolidating a practice of teaching research that learns from itself and renews itself in the process.

Results

The research identified pedagogical strategies articulated at the macro, meso, and micro levels of curricular scaffolding, designed to facilitate philosophical inquiry and reflection among tenth-grade students. The most relevant findings of the research process are presented below, organized according to the phases of scaffolding and the strategies implemented.

Macro-level scaffolding strategies

Macro-curricular scaffolding was based on the task of supporting students in their understanding of philosophical texts from the philosophy curriculum. For this purpose, Plato's *Allegory of the Cave* was selected as



the central text, given its metaphorical richness and conceptual complexity. This choice was not merely instrumental: it sought to reinforce the value of philosophy in everyday life, in line with the idea that philosophical education should transform existence and not be reduced to formal content (Alarcón, 2024).

PGT was used to improve applied reading comprehension through a didactic sequence. In line with Rose and Martin (2012), frequent revisions were made to the curriculum to align the texts with the learning objectives. This exercise also made it possible to redefine the teaching of philosophy, as proposed by Blanco (2007), by rethinking traditional methodologies through the PGT.

An excerpt from the area plan shows how standards, achievements, competencies, methodologies, and assessments were organized in a manner consistent with the macro-curricular scaffolding:

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Table 1
Academic program for the Philosophy course
at San Alberto Magno School (first term, 2021)

Standard	Understand through examples that philosophy is a common and necessary activity that is learned basically by putting it into practice
Competency	Interpretative, argumentative, proactive.
Achievement	Recognizes the importance of philosophy and the thinking behind early philosophical studies.
Evidence of learning	Contributes positively to the group's knowledge building and group environment. Identifies the problematic principles raised by philosophy. Establishes the importance of studying philosophy. Analyzes the causes that led the Greeks to philosophize. Generates and does not refrain from participating in classroom debates. Contextualizes situations between history and philosophy.
Methodology	Asks students to define the concept of philosophy. Concept strategy. Comprehensive reading of texts. Dialogued explanations. Mapping activities.
Assessment	Active participation in class. Workshop development. Text comprehension. Multiple-choice tests.

Following the macro-curricular stage, we move on to the second stage of scaffolding, known as the meso-curricular stage.

Meso-level scaffolding

At the mesocurricular level, the teaching sequence was implemented in 12 sessions between February and May 2021. The text was approached through an analysis of its discursive characteristics, which allowed it to be classified within the narrative genre with a dialogical structure.

The composition of the text reveals a use of conversational language intertwined with the narration of events, which unfolds through successive interventions between the characters. This dialogical feature, characteristic of Platonic works, highlights the intention to combine philosophical exposition with the dramatization of thought, allowing the reader to actively participate in reconstructing the meaning of the allegory (Plato, 1992). This dialogue between teacher and disciple also constitutes a fundamental didactic resource: the progressive transition from sensible to intelligible knowledge through the exchange of questions and answers.

The narrative analysis of *the Allegory of the Cave* was carried out according to the phases of orientation, complication, evaluation, and resolution (Rose & Martin, 2012). Each stage allowed students to progressively recognize the context, the dilemmas of the freed prisoner, the philosophical reflections, and the final resolution centered on the «idea of the good.»

A detailed reading of this dialogue allowed us to identify key linguistic resources: metaphors, abstract vocabulary, imperative and transitive verbs, all of which generate profound philosophical meanings. This exercise confirms what Esparza Urzúa (2024) points out: that philosophical understanding requires interpreting the symbolic forms that mediate knowledge, in this case, narrative and dialogical textual genres.

The sessions were meticulously planned, progressing from basic comprehension to critical analysis. This structure, in line with Fernández (2020), allowed for reflective and flexible teaching, tailored to the emerging needs of the group. The integration of LSF provided a solid foundation for strengthening writing and, of course, critical reading.

Likewise, the teacher's adaptability to the characteristics of the group was a decisive factor, confirming the importance of methodological flexibility both for improving comprehension and enriching teaching practice (Lerner, 2007).

Scaffolding strategies at the micro level

At the micro level, classroom objectives, materials, and activities were carefully organized. The sequence included the activation of prior knowledge, the contextualization of the text, detailed reading, the identification of keywords, and collaborative rewriting.

Difficulties in accessing the internet and technological tools were anticipated, which required methodological adjustments to ensure the equitable participation of all students. This level illustrates what Agüero (2022) proposes: that philosophy and education are embodied in specific institutional practices, where language and interaction constitute the subject.

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Interaction patterns

Analysis of the classes revealed the presence of initiation-response-evaluation (IRE) interaction patterns and their extended variants IRE-E. A significant example occurred when, after viewing an excerpt from the film *The Matrix*, the teacher posed open-ended questions to guide reflection on the notion of reality. First, he asked the students about the first question Neo asks Morpheus after waking up, to which one student replied that he was asking if what he saw was real. The teacher continued the dialogue by asking them to identify Morpheus' response, and another student recalled that he replied with a reflection: «What is real? Could you define what is real? If you talk about what you can see, smell, or feel, those are simply impulses interpreted by the brain.» From this exchange, the teacher took the discussion to a more personal level, asking the students what they themselves understood by reality. One of them summarized his view by saying, «What I can see or touch.»

This type of interaction reflects the traditional sequence of classroom participation—the teacher initiates, the students respond, and finally the teacher evaluates—but at the same time it opens up space for extending responses toward deeper reflections. The questions not only verified understanding, but also functioned as micro scaffolding that allowed students to connect their own conceptions with Plato's text and construct shared meanings. As Benítez *et al.* (2021) argue, carefully structured interactions increase participation and strengthen both cognitive and emotional connections to philosophical content.

Detailed and inferential reading

During detailed reading, students identified complex vocabulary, synonyms, and metaphorical expressions. To facilitate this process, the teacher used closed-ended questions that guided comprehension step by step. For example, when addressing the paragraph that begins the orientation stage, he asked what was bound by chains in the text. One student responded accurately: «the children's legs and necks.» The teacher then explained that the expression «so that» introduced a consequence and asked the students to identify it. Another student pointed out that the consequence was «to stay there and look only in front of them.» Finally, when asked for a synonym for the word «around,» one student correctly linked it to «surroundings» or «environment.»

These exchanges show how teacher mediation allowed students to recognize not only the explicit ideas in the text, but also the semantic value of the expressions, expanding their vocabulary and strengthening their literal comprehension. Guided dialogue, therefore, functioned as effective scaffolding that led to clear and accurate responses, demonstrating the students' ability to highlight and use key words in their philosophical reading.

Literal and inferential rewriting

During the detailed reading activities, students captured their literal understanding in written productions. Rather than simply repeating phrases from the text, they underlined key words, looked up synonyms, and developed definitions. For example, one student identified «derredor» as a synonym for «alrededor» and explained how expressions such as «de modo que» indicated cause-and-effect relationships in the narrative. Another student reinforced their understanding by linking new terms to examples of everyday use.

This evidence shows that the work was not limited to decoding, but that students were able to establish semantic connections, strengthen their vocabulary, and articulate clear responses. The process demonstrates the effectiveness of scaffolding in guiding students toward accurate literal reading, an essential first step in reaching inferential and critical levels.

A key moment in the process was the inferential rewriting of fragments of *Allegory of the Cave*. In one of the student productions, the passage in which Plato describes the return of the freed prisoner to the cave was reworked using more accessible and direct language. Where the original text spoke of the prisoner's «dazzlement» upon returning to darkness, the student rewrote it as «momentary blindness from going from light to

darkness.» He also replaced complex expressions with more accessible equivalents without losing the philosophical meaning of the argument.

This reworking demonstrates a deeper mastery: the students not only identified key words, but also managed to reorganize the ideas and give them a new expressive twist. The exercise of paraphrasing and substitution reveals the transition to inferential understanding, in which content is not mechanically reproduced, but critically and creatively reinterpreted.

Philosophical inferences

In the final stage of the process, students wrote philosophical inferences based on their reading of *Allegory of the Cave*. Their writings showed how they managed to connect Platonic metaphors with broader meanings about education and knowledge. For example, several interpreted «the chains» as representing the senses and the ignorance they produce, alluding to an existence limited by immediate perceptions. One student explained that the release from the chains symbolized the beginning of education, a path that is difficult and forced at first, but necessary in order to advance toward true knowledge.

Another analysis highlighted the prisoner's «dazzlement» as a metaphor for the transition from ignorance to truth: first, the pain of facing an unknown light, and then the difficulty of returning to darkness after having contemplated clarity. In their words, moving from darkness to light was equivalent to ascending from ignorance to the contemplation of the Idea of Good, while descending from light to darkness symbolized the effort of teaching others who remain in the cave.

These inferences reveal how the students were able to link symbols in the text to complex philosophical notions such as ascending dialectic, sensible knowledge, and the idea of the good. The clarity of their writing, the appropriate use of terms such as «education,» «ignorance,» and «true knowledge,» and the coherence of their arguments demonstrate that they reached a level of reflection beyond literal comprehension.

Discussion

The findings of this research confirm that the integration of PGT and curricular scaffolding is an effective strategy for overcoming the limitations that students often encounter when approaching philosophical texts. The teaching sequence implemented demonstrated that, through progressive scaffolding—from the macro to the micro—students developed both li-

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teral and inferential reading skills, achieving a deeper level of understanding of Plato's *Allegory of the Cave*.

At the macro curricular level, the update of the philosophy area plan showed the need to constantly review the guidelines to ensure their relevance and pertinence. This result is in line with Blanco (2007), who notes that PGT can serve as a tool for reinterpreting traditional methodologies. It also confirms what Alarcón (2024) argues: philosophy becomes a continuation of the educational task only when it is linked to institutional structures that legitimize it and give it pedagogical meaning. At this same level, as suggested by Posner (2005), judicious curriculum planning allows content to be adapted to the particular needs of each student population, ensuring that learning is linked to context.

At the meso level, the organization of the 12 sessions highlighted the importance of carefully planning each stage. Fernández (2020) points out that clarity of objectives and teaching resources not only strengthens teaching but also fosters a reflective and critical attitude. Similarly, Rose and Martin (2012) and Benítez *et al.* (2021) have shown that sequencing the phases of deconstruction, joint construction, and independent construction facilitates the progressive appropriation of textual genres. In this study, this structure was fundamental in guiding students from a literal understanding to levels of analysis and inference.

The analysis of the text in terms of narrative and dialogic genre confirmed the relevance of LSF as a theoretical framework. This perspective, as Sánchez Chévez (2014) emphasizes, allows reading to be understood not as mere decoding, but as a «dialogue» between the student and the text. Hence, the identification of metaphors, abstract vocabulary, and semantic resources in the cave has become an opportunity for students to exercise philosophical interpretation. Esparza Urzúa (2024) helps us understand this finding by reminding us that symbolic forms—language, myth, art, science—mediate all cultural and pedagogical experience, making it essential to address them in the teaching of philosophy.

At the micro level, interactions between teachers and students revealed patterns of IRE and its extended variants. These functioned as forms of micro scaffolding that offered students equitable opportunities to construct meaning. This result is consistent with the findings of Benítez *et al.* (2021), who argue that carefully guided interactions increase participation and engagement. Likewise, the teacher's flexibility in adapting questions and activities coincides with what Lerner (2007) describes as adaptive capacity, which is essential for responding to the changing needs of the classroom. In line with Agüero (2022), it can be said that such

interactions are not neutral: they are part of institutional practices that constitute students as members of a philosophical community.

The detailed reading and rewriting phase proved to be key space for the transition from literal to inferential comprehension. Students were able to reorganize passages of the text, replace expressions, and give them new language, while maintaining the original philosophical meaning. These results coincide with Ladrón de Guevara (2017), who highlights that PGT promotes progression towards deep reading, and with Espinosa Muñoz and Lázaro Canoles (2019), who emphasize the value of rewriting in critical comprehension. Along these lines, students developed self-regulation and metacognition processes by becoming more aware of their reading strategies and how to adjust them according to the demands of the text.

The development of philosophical inferences showed how students were able to link Platonic metaphors with abstract notions such as ascending dialectic, sensible knowledge, and the idea of good. This ability corroborates what Fuzer *et al.* (2017) propose: understanding the narrative organization of a text allows for a more effective approach to its philosophical dilemmas. At the same time, it confirms what the MEN (2010) identifies as specific competencies in philosophy: critical, creative, and dialogical.

Beyond the specific findings, this study reveals limitations that must be considered. The implementation was restricted to a single academic period and a single philosophical text, which makes it difficult to generalize the results to other genres, areas, or populations. In addition, the analysis focused on short-term impact, without evaluating the sustainability of the skills developed over time. These aspects are in line with the need, as Bruner (1986) points out, to direct education toward the development of lasting and transferable skills.

Finally, the importance of institutional support for teachers should be emphasized. The effectiveness of PGT depends largely on the training and resources available to those who implement it. In this sense, there is a confirmed need for educational institutions to provide ongoing support and guidance to teachers, thereby strengthening the possibility that these pedagogical strategies will be consolidated and extended to other fields of knowledge.

Taken together, the results and their discussion with the specialized literature show that the articulation between PGT and curricular scaffolding not only facilitates the literal understanding of philosophical texts, but also paves the way for critical interpretation and autonomous reflection. In this way, the teaching of philosophy moves away from the



uncritical reproduction of content (Rangel Díaz, 2020) and moves closer to the formation of subjects capable of linking philosophical thought with their own situated experience (García Guzmán, 2019).

Conclusions

The application of the teaching strategy based on PGT and curricular scaffolding showed that these perspectives offer effective tools for strengthening reading comprehension of complex philosophical texts. In particular, students were able to move from literal comprehension to inferential interpretation, showing a greater ability to identify specialized vocabulary, establish meaningful relationships, and rework philosophical discourse in their own words.

A decisive factor in this process was the active participation of students, facilitated by teacher mediation. Guided interaction in the classroom was consolidated as a space for collective construction of meaning that made philosophy accessible without sacrificing its conceptual density. The experience also showed that it is possible to transcend rote memorization to achieve critical and reflective understanding, in which texts are linked to the students' own frames of reference and life experiences.

The study also revealed certain limitations. Implementation was restricted to a single academic period and a single philosophical text, so the results cannot be broadly generalized nor do they guarantee the sustainability of the skills achieved over time. These aspects pave the way for further research to evaluate the permanence of learning, application in other textual genres and disciplines, and impact in different educational contexts.

Finally, there is a need to expand and diversify research on PGT and curricular scaffolding. Future lines of research include: evaluating the sustainability of reading skills developed in the long term; applying these strategies to other texts and areas of knowledge; integrating digital tools that enhance textual analysis; and strengthening teacher training to ensure a solid and contextualized implementation of these pedagogies.

In summary, the results show that the articulation between PGT and curricular scaffolding not only enriches teaching and philosophical approach, but also constitutes a promising path to democratize access to the comprehension of complex texts and to foster critical thinking and constant reflection in secondary education.

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THOMAS MANN'S "THE MAGIC MOUNTAIN" AND ITS CONTRIBUTION TO CIVIC-ETHICAL EDUCATION

"La montaña mágica" de Thomas Mann y su aporte a la formación ético-cívica

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h-index: 10

Abstract

This research paper reflects on the comprehensive education of our secondary school students, based on a reading of Thomas Mann's novel *The Magic Mountain* (1924). First, considering European nihilism, as formulated by Nietzsche, which has been in force for more than a century, and the philosophy of health, a theoretical framework is constructed that allows us to interpret the work from our present perspective, with its problems and challenges. The objectives focus on articulating health as a pillar of education for citizenship, promoting Platonic *apagōgē* and civic courage against war. The qualitative methodology uses nihilism as a hermeneutic framework for a "reform of consciousness", revealing the contemporary myths of youth. Two main keys to interpretation are developed: the necessary interweaving of ethics as a philosophical discipline, and the consideration of the philosophy of health as an object of reflection from the Greeks to the present day. It concludes that the thesis that the philosophy of education must be conceptually designed, within the framework of so-called citizenship education, is a fundamental chapter in health education, from the perspective of caring for oneself, others and the community, based on an appreciation of the ethics of freedom, autonomy and responsibility.

Keywords

Education, Philosophy, Health, Citizenship, Literature, Ethics.

Resumen

El presente trabajo de investigación reflexiona, a partir de la lectura de *La montaña mágica* (1924), novela de Thomas Mann, sobre la formación integral de nuestros estudiantes de secundaria. En primer término, considerando al nihilismo europeo, formulado por Nietzsche, que lleva más de un siglo de vigencia, y la filosofía de la salud, se construye un marco teórico que permite interpretar la obra desde nuestro presente, sus problemas y desafíos. Los objetivos se centran en articular una salud pilar de una educación para ciudadanía, fomentando la *apagōgē* platónica y el coraje cívico contra la guerra. La metodología cualitativa emplea el nihilismo como marco hermenéutico para una "reforma de conciencia", desvelando los mitos contemporáneos de la juventud. Se desarrollan dos claves principales de lectura: la necesaria imbricación de la ética como disciplina filosófica y la consideración de la filosofía de la salud como un objeto de reflexión desde los griegos hasta la actualidad. Se concluye que la tesis de que la filosofía de la educación tiene que diseñar conceptualmente, en el marco de la llamada educación para la ciudadanía, es un capítulo primordial referido a la educación para la salud, desde el enfoque del cuidado de sí mismo, del otro y la comunidad, desde la apreciación de la ética de la libertad, autonomía y responsabilidad.

Palabras clave

Educación, filosofía, salud, ciudadanía, literatura, ética.

Introduction

The recent Spanish translation of the fictionalized story of Thomas Mann's life (Tóibín, 2022) has sparked renewed interest in the work of the German writer, winner of the Nobel Prize in 1929 and author of *The Magic Mountain* (hereinafter: MM and ZB for the Spanish and German editions), published in 1924 and which has just celebrated its 100th anniversary. On the centenary of the work, it is no less interesting to reflect on its purpose and scope, for reasons that will be explained throughout

this paper, which focuses on the novel and places it in the context of the period 1918-1939, i.e., between the First and Second World Wars.

Philosophy, as a critical, rigorous, and sober reflection on artistic events, must return to the recent past to see if we can derive any benefit from reading literary works that have become landmarks and signs of the meaning of an era and its education (Ochoa & Aranda, 2023). In this regard, the philosophical formation of two young people is addressed, whose destinies will be affected by the two wars of the 20th century, so that the author polarizes violence in young people who, in one way or another, are its protagonists. Unfortunately, the drums of war are currently sounding, and the propaganda of the contenders is aimed at winning the favor of the young population, which has always thought of pacifism and neutrality as the best weapons against war violence.

Therefore, the objective of this work is to articulate an applied and concrete hermeneutics that interprets the novel from the present, through the multiple messages it presents on the freedom-authority dialectic. In addition, the double perspective of the mountain and the plain in which the work takes place is contemplated, as well as the innocence and sacrifice of the youth of both protagonists.

The fundamental idea put forward in this article is that, both in 1924 and in 2024, there is a divergence between the lives and thoughts of young people and the course of the world. While they enjoy life—even in a tuberculosis sanatorium—they are attentive to women and the pleasures of life, including thoughtful discussions about the prevailing ideological trends in Europe and America. Meanwhile, historical dynamics follow unfathomable paths, leading to wars that, apparently, no one wants, but which are unleashed and have young people as their main protagonists and victims. This approach produces an important variable in the study of philosophy for adolescents: thinking about the invisible, about what is hidden, for example, behind the embellished world of social media, which generally presents a monochrome image that lacks the power to question the *mainstream* and the ideological devices that accompany it.

For all the above reasons, this research is based on the regulatory standards of what ethical-civic education should be (Hesse, 1992; Tóibín, 2022) in secondary education as a philosophical subject, which aims to educate citizens for peaceful coexistence and solidarity. Given the nature of the subject under study, in the analysis of MM, based on the phenomenon of European nihilism (Nietzsche, 2006) as a guideline and hermeneutic framework, the generic thesis that young people and their education are one of the decisive factors when countries in conflict prepare for



war makes sense. The thinking presented in *Perpetual Peace* (Kant 1999) has been considered as counterfactual arguments.

The philosophy of Michel Foucault (1988 and 2009) has insisted that beyond the multiplicity of themes, there is one that articulates and structures all philosophical thought: *thinking about the present time*. The level of problematicity of this forces us to study the mechanisms of power, such as those that are distributed and shared among all individuals, and the way in which systems of subjection are created that today, for example, allow us to think of war as a possible solution at the global level and as something that is carried out in a clean way, since modern technology supposedly allows us to attack the enemy where they keep their weapons and arsenals. This must be thought about and debated in philosophy classes, as it is the responsibility of today's young people, who will be adults.

The relevance of the *Bildungsroman* (coming-of-age novel) in our time is articulated through nihilism as a hermeneutic framework for a necessary «reform of consciousness.» This reform, initially conceived by Marx (1976), is not based on the imposition of dogmas. In the current situation, where young people are torn between suffocating materialism and the formation of their critical thinking, the philosophy of education takes on the task of revealing and bringing to light mysticism and mythology. Once this exercise has been carried out, self-understanding can be achieved, where the reform of consciousness becomes a critical mechanism that dismantles ideological mechanisms of subjection.

To conclude, this work is organized into three sections, which develop the multiple philosophical theses proposed in light of a world facing great and painful wars, and that philosophical education may be the most important weapon for training present and future generations to actively fight for peace. The topic addressed is currently relevant given the omnipresent violence derived from war and the armed conflicts that destroy any dignified form of survival. Faced with this grim outlook, the question arises: is education for peace possible?

The specter of nihilism

In the summer of 1887, Nietzsche (2006) wrote a fragment entitled «European Nihilism,» in which he states the following:

Nihilism appears now *not* because the displeasure of existence is greater than before, but because there is mistrust of a «meaning» of evil, and even of existence itself. *One* interpretation has succumbed, but since it



was considered *the* interpretation, it seems as if there is absolutely no meaning in existence (p. 165).

The most inhospitable and sinister guest that European culture has welcomed is characterized by a crisis of meaning in human existence (Aranda Torres, 1996; García Pedraza, 2023; Linés, 2006). If this were indebted to an ultimate goal, we would have achieved it. Not only does the moral god not appear before the world, but he is also absent from our lives. The ethical deficit suffered by citizens of democratic societies—both due to the absence of authentic citizenship education and the failure of so-called «values education,» which often suffers from a lack of definition and indeterminacy of the very concept of value—justifies today, as yesterday, redoubling the call for comprehensive ethical education and training, from the primary levels of schooling (Nietzsche, 2011; Ochoa Pineda, 2022). From this point of view, this contribution aims to link health as self-care and ethical-civic training as two of the most important contents of citizenship education.

These contents of teaching programs and didactic programming in primary, secondary, and university education should be taught as cross-curricular for all subjects, especially for the subject of philosophy, as long as it remains present in academic curricula.

It is important for educators to recognize themselves in their subjectivity and reflect on their way of being, of feeling, and of relating to others in different contexts, allowing students to also accept themselves internally and, in this self-reflection, for the cognitive to acquire individual meaning within the collective experience (Aguilar Gordón, 2009, p. 76).

To develop this objective, the following lines attempt to propose the didactic value of a modern *bildungsroman* that is now a hundred years old but which retains its relevance because it is set in a decisive period, whose spiritual situation—both in Europe and America—does not seem to have dissipated, especially with the outbreak of wars in Ukraine, Gaza, and Iran, and other sources of tension affecting global security. The current situation harks back to bloc politics, the open and unhealed wounds of the immediate past, the Cold War, the fall of communism in Eastern Europe, and the seemingly fruitless efforts to ensure peaceful coexistence in the new world order, characterized by a global market and a network of physical and virtual communications that seems to have reached and colonized every corner of our planet.

Today, there is a paradox in that financial capitalism, which shapes global economic exchanges, has not pacified human life, but has led to the standardization of consciousness, the most important consequence of



which, in the light of philosophy, is the loss of awareness of the common good, the guiding principle of human freedom to live in society.

In this regard, it is interesting to pause briefly on a text by Marx, which clearly defines the interpretative perspective of the current moment, taken from a letter of September 1843, addressed to Ruge and published in *the Franco-German Annals* in 1844:

The reform of consciousness consists *solely* in allowing the world to reach into *its own consciousness*, in awakening it from its slumber about itself, in *clarifying* its own actions [...]; reform of consciousness not through dogmas, but through the analysis of mystical consciousness, confused about itself, whether religious or political (Marx & Engels, 2017, p. 346 and 1976, p. 176).

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In short, Marx sums up the magazine's tendency, as well as his theoretical thinking, in one sentence: «Self-understanding of time in its struggles and desires.» The interior of the world is the mundane consciousness of human beings. What reading of this Marxian text is possible that is understandable to students? For Kirk *et al.* (1987), the same one that philosophy has done since the pre-Socratics, Plato, and Aristotle. Either the student's consciousness is coerced, with the help of representations of it, chained in a prison and gripped by a ghostly dream, or consciousness will continue to be dominated by alien and strange forces that keep it imprisoned in an eternal jail. We must unveil and bring to light the mysticism and mythography that inhabits and populates the minds of our students (). An analysis of the myths of our time, in which young people recognize themselves and identify, is not a bad start in philosophy.

The founding myth of our time, if we can speak of such a thing, is the all-encompassing force of a temporary ecstasy with absolute domination of the present and a hedonistic conception of life, which is there at our disposal for consumption and enjoyment (Herwig, 1999). The phenomenology of today's youth curiously mixes rebellion with moral cynicism, the consequence of an evil that can be described as spiritual. This is characterized by a suffocating materialism that has its exact counterpart and correlate in ignorance and intellectual poverty.

It is a neurosis that no psychological law can explain, that no psychologist dares to treat, because it refers to the *abnormal normality* of everyday life that affects us all. Or perhaps it is a form of schizophrenia that consists of acquiring more and more possessions the more uncultured one is. It is possible to highlight, as if it did not affect anyone in particular, this deep and gloomy neuroticism of our society, these diseases

of our time that harm our lives without us realizing it (Hesse & Mann, 1992). The reform of consciousness that is relevant today must begin by changing the image we have of young people, to see it in its full and profound meaning beyond viewing youth from a negative stereotype. The qualitative methodology used in this research aims to delve deeper into the mentality of today's young people, too often seen as a paragon of superficiality and disinterest in the common good.

Methodology

This study is based on a qualitative approach, using European nihilism (Nietzsche, 2006) as a reference point and hermeneutic framework for studying the relevance of the Bildungsroman today.

For the analysis, we have chosen the phenomenological-hermeneutic method, in which, for Gadamer, the «fusion of horizons» prevails. This fusion leads to an inevitable dialogue that, if not possible in forums created for this purpose, would be possible in the classroom and, specifically, in philosophy classes (Viveros, 2019; Ledesma Albornoz, 2021). The research was carried out taking into account that analytical disciplines are dominated by *technical and interpretative interests*. At the same time, means-end social action characterizes predictive research (Taylor, 2004).

The choice of this approach is justified, since the qualitative and interpretative view considers phenomena and experiences within an intersubjective context (Habermas, 2005 and 2010). From this perspective, the *practical interest* of hermeneutics is evident in communicative action, with full awareness of the existence of perspectives other than one's own (Walker & Lovat, 2016; Granero Molina *et al.*, 2015). Thus, in any critical approach, where many philosophical studies are based, there is a concerted *emancipatory interest* in safeguarding freedom, autonomy, and human dignity.

Finally, the chosen heuristic procedure seeks to reveal the mysticism and mythology that inhabit the youthful consciousness, analyzing contemporary concerns and myths, such as hedonism and contextual materialism.

MM as an example of bildungsroman and its reverberations in our time

Why using Thomas Mann as material for teaching philosophy and contemporary thought? What are the keys to reading this author and his book? How do they relate to the art and thought of the 19th, 20th, and



21st centuries? If we had to give an initial answer to these questions, we would have to say that our author is an intellectual in the shadow of nihilism. Throughout his work, he has acknowledged four fundamental teachers in particular: Schopenhauer, Wagner, Nietzsche, and Freud (Mann, 2013 and 2014), in addition to universal literary figures such as Cervantes, Shakespeare, Goethe, Schiller, Tolstoy, and Dostoevsky, among others.

Embedded in one of the most profound traditions of contemporary thought, his literature is a clear example of the deep intertwining of art, in this case writing, with philosophy and life, but not just any life, rather a life threatened with exhaustion, a life that not only desires nothingness, but is also nullified in itself.

This line of thought has become the spiritual master of our time, in the sense of the self-immolation of the spirit in the face of life, or the supremacy of life over reason, which produces a new philosophical object that identifies everything that human life demands in situations of hardship and need. The literary product of this negation comes from German Romanticism which, like humor and irony, has characterized the nature of art in relation to extra-artistic reality.

In my case, the experience of the self-immolation of the spirit for the benefit of life became irony, a moral stance that is that [...], self-denial, the self-betrayal of the spirit for the benefit of life, understanding «life» to mean [...] kindness, joy, strength, grace, the pleasant normality of triality, of lack of spirit (Mann, 1978, p. 43).

This is what art, or at least art in the shadow of nihilism, seeks to represent: the *ethos* (or why not *hubris*) of a personal nature, which does not aspire to the improvement or realization of socio-political ideals, but simply to become a game, a playful technique that makes us aware of who we are and what we want (Carr, 2017). Mann stands as an artistic titan against the political deformation of human thought and culture, typical of the legacy of the 18th and 19th centuries, opting for a Renaissance-style aestheticism, overlapping and latent throughout those same centuries, which appears with force in the artistic avant-garde of the 20th century (Herwig, 1999).

The difficulty with philosophical thought is probably due to the fact that we continue to see ourselves in the orbit of Enlightenment thinking as a way of thinking that is projected and culminates in the social and political as useful, rather than in the artistic as formative. Romantic-reactionary thinking? Art instead of politics? It is not about that, but about something more radical, more significant for our present. Mann openly



proposes mass democracy as a certain crisis of the spirit, as a malaise in culture, as if democracy were accompanied by a crisis of spiritual values, a numbing of human creative capacity, a degrading and degraded uniformity of its achievements.

Art is not anti-democratic; it challenges citizens in a democracy to improve themselves, to aspire to more, to reject the egalitarianism that levels us all down (Safranski, 2003). This is not a nod to authoritarianism or totalitarianism, but something more subtle, which we can see at the root of contemporary German culture. Rather than totalitarian ideals, Mann sympathizes with Goethe's Olympic ideal, understood as *pathos* of distance: «Otherwise, it annoys me greatly to be taught without [reference to] my capacity for improvement or simply [not to be taught] in order to stimulate it» (Goethe & Schiller, 2014, p. 381). This defines Mann's own *pathos* of distance or aristocratic *pathos*, always very attentive to Goethe's influence. For this reason, philosophy has in common with art—and especially with the literature of thought—dealing with and engaging in formative activities of and for excellence, for civic and civil improvement, for nonconformity with what exists, whatever that may be.

Philosophy and literature as formative activities and disciplines are not resolved in concrete or party ethics or politics, but in culture and individual formation (*bildung*) for the improvement of citizenship, which will then have an ethic or assume a certain political commitment, driven by a series of experiences or life choices (Moretti, 2015; Schutijser de Groot, 2022). The author of MM focuses on the consequences of Nietzschean thought, which extend to Ortega and Gasset, and which can be read as the search for reason in what the great systems of the 19th century left unthought, that is, in human life in its individual urgency and preemptory nature.

The author fits into the German and European tradition of the *bildungsroman*, which Goethe consolidated in *Wilhelm Meister's Apprenticeship* and which has continued to bear fruit ever since. This study is derived from Hans Mayer's now classic thesis (1970) that this artistic form is Germany's main contribution to modern art. Mann's hero is the mirror in which the whole of society is ironically reflected, «but not to show a hero in his steadfastness before social totality, but, on the contrary, to deny that social totality from its very foundation» (p. 23) and also to show that the young hero's destiny is to face inexorably what he has come to know as the fundamental tendencies of the spirit of his time. These tendencies have their names and can be reduced to two: one is humanitarianism, which is the way humanism has penetrated contemporary politics, proclaiming the validity of the great values of Western culture and having



democracy as its culmination; the other is a certain form of apocalyptic thinking, which puts forward a radical critique of bourgeois civilization, only to then preach the need for a new beginning for humanity, a decisive turn in human history, perhaps toward an uncertain destiny. For Yourcenar (1978), they can be associated with liberalism with humanist roots and with emerging thinking about revolution, whether in its socialist or totalitarian version.

In the present century, tired to exhaustion of raising ethics within a philosophy of values, it has proved as ineffective as in the previous one, since there is no deterrent force of sufficient weight to counteract the war-mongering passion that lurks in the heart of totalitarian regimes, regimes that consider force and war to be the lesser evil to subdue those who are wrong (Herwig, 1999; Aramayo, 2009).

Therefore, we are attempting to unify ethical-civic education with the philosophy of health. MM's tubercular cousins have learned that there are no values higher than those demanded by country, family, and tradition. We agree with Tóibín (2022) that all these values no longer dispense life, because those who have the *raison d'état* never have the right to sacrifice young people and their life plans and projects.

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MM as educational material

In the preface to the novel MM, Mann confesses that the story of its protagonist, Hans Castorp, is worth telling, but that it unconditionally requires a reference to time as the distant past, i.e., to time that is still relevant, the present past (Safranski, 2017). Every story is older than the age of the narrator, which means that being past is not a problem of time and that it is about the present time. This makes the writer lucidly aware of a character that permeates and surrounds the nature of his craft as a storyteller. Their work, in this case (ZB and MM), is set before a certain turning point (*wende*) and boundary (*grenze*) (ZB, p. 9; MM, pp. 9, 33), which were decisive and characteristic of the 20th century.

The last century revolves around a change of direction and course, represented by the Great War in Europe, a single war in two installments, which has determined the life and consciousness of humanity, the rise of totalitarian regimes in the interwar period, and democratic regimes since 1945, with exceptions such as Spain. The question is what the young people who were later involved and were victims of these atrocities were like and what they thought.

The gravity of the matter is determined by the reader, pressed by a present that does not allow them to see the profound spiritual trend of their era, a trend that will determine the historical events of the immediate future. The action of the novel is set in space-time coordinates that imply, for those who have little life experience and are not sufficiently rooted in historical existence, the development of new forces, inner transformations that make one open to new experiences.

Similarly, the space, a remote alpine location far from the madding crowd, allows one to almost completely forget what has been left behind and seems to transport the young man to «a free and original state» (ZB, p. 12; MM, p. 36). But the three weeks planned for a stay in a tuberculosis sanatorium seem too long to the young man for his urgent needs, too long to escape his daily worries and concerns. The entire novel revolves around the usurpation of time by two young people who find themselves kidnapped by life, threatened by a terrible disease, in a kind of Platonic cave from which they cannot escape because their very lives are at stake.

The seven-year period of sanatorium life is roughly equivalent to that of our high school students. Castorp is a young man who comes to consciousness with the death of his parents and the memory of his grandfather showing him a small baptismal font, which is nothing more than an old silver basin that had been used as a baptismal font since the time of his great-great-grandfather.

A few months after the death of his parents, he also loses his grandfather. His orphanhood leads him to have to wake up and get ahead with the small help of some blood uncles who care about his survival while he studies to earn a living. The novel places him, now a diligent engineering student, as befits his wealthy bourgeois family from Hamburg, visiting his cousin and friend Joachim Zimsell, who is a patient at a tuberculosis sanatorium near the Swiss town of Davos, in the heart of the Alps, during the summer holidays.

The image that both young men have of themselves projects them and makes them dream of a promising future. Hans will be a naval engineer and Joachim a career military man. Both believe that the future smiles on them and that they will fall in love with some fascinating woman. What Hans thought would be a brief stay to accompany and encourage his friend turns into a prolonged winter stay in which two crucial events in his life take place.

The first is his falling in love with a woman as mysterious and enigmatic as she is attractive, Clawdia Chauchat, a native of Dagestan. The other is an educational/formative process, the result of reading to kill



time and conversations forced by the lack of anything better to do with guests and patients at the sanatorium. Among these, Settembrini stands out, a republican humanist whose opinions make an impression on the young student, whose life is interrupted by the threat of Koch's bacillus, forcing him to put everything on hold to devote himself to curing himself of such a malignant disease—or at least its symptoms. Settembrini's antagonist is a certain Naphta, a former Jew and Jesuit, whose elitist education leads him to believe that the evil of our society has to do with the irruption of the uneducated masses onto the European and world social and political scene (Ramis, 2010).

The plot of the novel serves the author to illustrate the vital and spiritual situation of a young man who was born at the turn of the century and with whom he identifies, for better or for worse. His state of mind is essentially paradoxical, as perhaps is that of all fin-de-siècle or neo-secular consciousness, when we enter centuries such as the 19th, 20th, or 21st, where everything seems new and yet nothing is really new compared to the previous century.

The paradoxes of the student Castorp refer to the problems of adolescents in the early decades of the century, such as the inseparability of life and death, health and illness, civilization and barbarism, freedom and authoritarianism, democracy and autocracy, individualism and collectivism, to give a few examples of what our protagonist discusses in his conversations and dialogues with older people.

The first thing Hans notices is that, in the sanatorium, there is neither time nor life (ZB, p. 26; MM, p. 49), because the threat of death relativizes all temporal flow; time is emptied of content, since each passing day is time subtracted from the illness and gained for life. Given the epochal assumption that the impairment of personal life can influence the deterioration of the human physical organism, the first thing to consider is work, idolized by the previous generation.

How could Hans Castorp not respect work? It would have been unnatural. Given the circumstances, he could not help but consider it the most respectable thing in the world. [...]. His respect for work was therefore religious in nature and, as far as he was aware, indisputable. It was quite another matter that he loved it [...] for the simple reason that he was not made for work (ZB, p. 52; MM, pp. 73-74).

The text warrants a line-by-line comment, but for the purposes of this article we will only focus on the aforementioned «religion of work» as a paradox that characterized the protagonist's ancestors and, in a way,



those born and raised in the first half of the 20th century. It was the religion of our parents and grandparents, who wielded, among other things, the idea that those who do not work should not eat, although it is clear that this is not the religion of our disciples. In general, it can be said that today's high school graduates have less of a spirit of sacrifice than previous generations and less awareness of the contemporary social situation (Carr, 2017), which was essential for their ancestors. Digitalization involves little more than finger activity and few intellectual requirements. Anyone can know and have an opinion about anything, because opinion makers do not seem to have been trained in any school. Leisure, as Castorp believes, seems to be the destiny of young humanity. The coda is not without irony: «For we do not in any way intend to eulogize Hans Castorp, and we give reason to suppose that, in his life, work simply hindered his quiet enjoyment of María Mancini [a famous brand of Havana cigars]» (ZB, p. 52; MM, p. 74).

Otherwise, the characterization of this young German from the interwar period is interesting because it presents traits that are very relevant today. The student has philosophical gifts that the teacher cannot imagine, but the difficulty lies in the fact that Professor Settembrini is intolerant of opinions he does not share. Young Castorp says:

I am, as you see me, a little intolerant when it comes to matters of the spirit, and I would rather be called pedantic than stop fighting views that I consider as worthy of fighting as those you have just presented to us (ZB, p. 137; MM, p. 152).

Here we see the typical and cliché attitude of the teacher, who believes he is so sure of his knowledge that he considers it irresponsible on the part of the student to hold certain arguments, which can be refuted with better arguments, but towards which intolerance is not possible. Faced with the students' inclination to hold the most varied points of view, even passionately, what remains is understanding and assertive guidance. But what is this about, since the parallel between tuberculosis and our COVID-19 does not seem far-fetched (Ochoa & Aranda, 2021).

The disease is in no way distinguished or respectable; this way of seeing it is, in itself, unhealthy or leads to illness [...]. It dates back to times burdened by superstition, when the idea of humanity was degenerate and deprived of all dignity [...]. But reason and the Enlightenment have dispelled those shadows that weighed on the soul of humanity, although not completely, for the struggle still continues. This struggle, my friend, is called work (ZB, pp. 138-139; MM, pp. 152-153).

Because, ultimately, the debate about health and illness as means of individual fulfillment is framed in a context in which two visions or conceptions of freedom rival each other: determinism and indeterminism. The principle of freedom has been fulfilled and surpassed over five hundred years. A pedagogy that still considers itself a disciple of the Enlightenment, and which sees its means of education in criticism, in the liberation of the self and in the cultivation of the self, in the dissolution of certain forms of life that are absolute in nature, may today achieve momentary successes of a rhetorical nature; but its backward nature offers no doubt to the knowledgeable. The principle of absolute freedom, established in the Renaissance and in the free interpretation of the Scriptures, championed by Luther, culminates in dictatorial and terrorist political regimes, according to Mann's liberal diagnosis of thought.

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All truly effective educational associations have always known what was really important in pedagogy: absolute authority, an iron bond, discipline, sacrifice, renunciation of the self. [...] *The deepest pleasure of youth lies in obedience... What it needs, what it is asking for, what it will have, is... terror* (ZB, pp. 548-549; MM, p. 537).

The restoration of the principle of authority, promoted by critics of liberalism and by all conservative thinking, has as its corollary, in 20th-century Europe, all forms and regimes of authoritarianism and fascism. Unfortunately, we have not moved beyond this polarity: the principle of freedom versus an authoritarian, castrating education based on the authority of the teacher, founded on sacrifice, renunciation, and the absolute denial of free will.

The debate in the classroom is set. What is undoubtedly more problematic or controversial is Naphta's coda, intended to scandalize and provocatively mock Settembrini, when he refers to terror and says that our time needs, demands, and will have terror.

It is not only a decoy for the fear of bloodshed and absolute respect for human life, but also a premonition considered by Mann, who experienced the war of 1914 as something that stirred in the spirit and conscience of many intellectuals and ideologues. The sacrifice of human lives in the name of an ethic of conviction was the necessary means to certain ends for humanity as a whole (Weber, 2006).

Do we live in such a humanitarian age that we can dismiss as a thing of the past, the mockery of the fear of bloodshed and respect for human life? To what extent does the totalitarian and authoritarian slogan «live dangerously» encourage warmongering and the idea of sacrificing

life for higher interests? These questions are ideal for teaching/learning philosophy in our time; they remain relevant because, so far, no convincing or acceptable answer to war has been found (Ochoa Pineda, 2022; Saavedra Campos & López Pérez, 2022).

The mixture of revolution and obscurantism, typical of apocalyptic prophets of all times, is not diluted or dissolved by a solution that advocates the eradication of illiteracy and an increase in the importance of humanistic culture in secondary and university education. The slogan of the interwar period, «live life and do not give up on desire,» raises the question of its relevance in an era of young people who do not read or, at most, read screens, who boast of cyberculture, as opposed to a significant portion of young people who are eager for knowledge, lack opportunities, and are victims of aporophobia.

In short, how does the philosophy of health come into play in a subject in which the role of disease is crucial, from the understanding of philosophical activity as a stimulus, incentive, and incentive for life? Under the implicit and often forgotten assumption that thinking about goodness, beauty, and justice, «in a word, in the sovereign joy of art, that great dissolver of hatred and foolishness» (Reich-Ranicki, 2003, p. 40), health as care for oneself and others has at least two fundamental roles. The first is to propose responsibility as the property of the individual who must combine it; the second is related to the principle of autonomy, understood as the concrete realization of human freedom.

Teaching philosophy based on MM-ZB

Some applications to our present can be drawn from Castorp's adventure of thought in the tuberculosis sanatorium in the early years of the last century, which can be useful for studying current trends in philosophy. First, it is noteworthy that Mann's literature is resolved in the interplay of dialogue between characters, whom the reader identifies from the outset because they are familiar. This new dialogism raises questions that seriously affect the consciousness of young people on the eve of a decisive event in their lives, in one case World War I, in ours, an uncertain professional future and a civilizational crisis marked by multiple wars. In relation to the issue of health, Mann's ambivalent attitude is striking (2002): «Certain conquests of the soul and knowledge are not possible without illness, madness, intellectual crime, and the seriously ill are crucified and victimized, offered up as a sacrifice to humanity and its elevation» (p. 203).

The first section of this work has argued that all theoretical efforts in the study of the humanities ultimately lead to the self-understanding of the individual in the form of a critical awareness of time, in their struggles and desires. MM consists of a spiritual diagnosis of an era of hardship, characterized by the disease of the spirit, for which physical illness, and tuberculosis in particular, serves as a metaphor. According to Mann, humanity cannot be conceived of as free from disease. What syndrome characterizes the time in which we live? It is a psychological, emotional pathology whereby human beings cannot conceive of or integrate into their concrete existence the kind of life in which they are immersed.

This morbidity affects the ideas and ideals that, from classical Greece through the Renaissance, have informed classicism and romanticism, and have come down to us today as a spiritual trend, in which the humanities, the knowledge we call literature, are fused with a pedagogical zeal that strives for education (*erziehung*) and the formation of the human race (*bildung*). This nihilistic *pathos* could be described as a crisis of humanistic pedagogical ideals or simply *a crisis of humanism*.

For all these reasons, MM is an introductory work that seeks to re-educate the reader with a basic nihilistic slogan: it is better to want nothing than to want nothing, however debatable that may be. As an introductory propaedeutic, the work directs as a conductor who wants to harmonize the sound of different instruments.

As a guide that reintroduces the cultivation of humanity, the novel represents a clinical and therapeutic necessity with regard to the spiritual illness of contemporary humanity. The direction of the cure is self-direction and self-correction, conducting oneself without external help that, in the form of crutches, pushes in a certain direction foreign to consciousness and will.

This and no other is the content of education and the humanist ideal: human autonomy and moral responsibility, as opposed to heteronomy, represented by Settembrini and, above all, by Naftha, that agitator who sows hatred, justifies violence, and takes sides with terror and revenge as means to achieve an immutable, sacred, and timeless order that, in an illusory and untimely way, he wants to identify with the kingdom of God on earth. If Settembrini represents a certain enlightened tradition, with certain touches of secularism and Jacobinism, Naftha is the exalted conservative who advocates violently ending the present in order to restore the past, as a way of establishing an eternal order in the world.

Neither option is proposed by Mann as a solution, but rather as elements of judgment for Castorp's reckless mind, which is faced with the



spiritual trends of his time, but whose great responsibility is to be able to think for himself and make decisions about his life and destiny. The extreme irony of the work, its latent pessimism, can be found in the short chapter that serves as its epilogue.

In short, and to conclude, two attitudes and a coda can be contrasted. Two orientations of the spirit are possible, because they are not mutually exclusive, but difficult to observe in themselves: «The attitude based on freedom and the attitude based on piety» (Mann, 2005, p. 401). The second prevails over the first because «it pays special attention to the weakness and fragility of human beings and attaches great importance to the idea of death and decay» (p. 402). Incidentally, the author integrates into the second attitude the ancient Hispanic spirit for which «devotion is a key element» (p. 402). But the terrible coda is the horror of war. Herein lies the true value of the novel, in relation to which the above is nothing more than a prologue to the situation.

Next, we will analyze in detail the passage in which the fate of the young man, who has lived the pre-war period as a special moment, is concluded and carried out. Opposite objective time, which is measured by the clock through the space of the dial, is subjective time, which relates to the state of mind. In the novel, this is the time of illness, present in the world around us and in the shared world, but above all in the inner world of experiences.

For Mann, being or feeling ill is an experience of the subjective passing of time, a concrete intrapsychic experience that causes pain, «it is chilling [lit. sinister] and painful that the body lives on its own and without any connection to the soul» (ZB, pp. 102-103; MM, p. 120). Similarly, war is presented as a bodily experience, regardless of any care, concern, anxiety, or worry for others.

The significant epigraph that closes the work, *donnerschlag*, which translates as thunder and lightning, or storm, provided that it is not atmospheric but produced by cannons, puts an end to seven years of Castorp's life in the high mountain lodge that serves as a tuberculosis sanatorium. The effect of this on his mood is understood as that of being acclimatized to the treatment of his illness, that he «no longer knew where to go and was not even capable of conceiving a return to the world of the plains» (ZB, p. 972; MM, p. 937). Now the global perspective, which looks at things from a high and panoramic point of view, is replaced by a leveling, homogeneous perspective of the plain where two enemy armies face each other.



He shared the table with members of other nationalities, with members of humanity, even if they did not know Latin and their manners left much to be desired. The dead left Castorp indifferent, as a result of learning about illness, in the same way that he had given up both his wristwatch and calendars, since time no longer mattered. But the time of thunder came one summer in 1914, with a strange mixture of bewilderment and irritation, which shook the foundations of the earth, including the magic mountain, which put the seven-year-old sleeping beauty on guard and forced him to pay attention to what had happened in the world during his hibernation.

Where are we? What is this? Where has the dream taken us? [...]; sirens howl like dogs from hell, and their noise explodes in a din of flashes, clicks, creaks, broken glass and clashing metal, screams and moans... and, in the midst of it all, a drum beating faster and faster (ZB, pp. 980-981; MM, p. 943).

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War conflicts are very different when experienced from the trenches that make up the front line. Mann has chosen to narrate them from the perspective of the amazement, perplexity, and innocence of a youthful, insufficiently formed mentality that has given little thought to the matter.

The phenomenological description of the perplexed consciousness of the novel's protagonist helps today's reader to understand a little better the horrors of war, far from all the usual propaganda and publicity. Here we find war in all its rawness and filth, in all its barbarity and senselessness.

In contrast to the comfortable spirituality of the mountain of magicians and teachers who debate, war is the muddy European plain where the combatants meet in a more cruel way, where the opponents are stationed in trenches, where the combatants have no other slogan than to kill or die.

The plain, unlike that lovely, magical Alpine mountain, an epochal symbol of all educational institutions, represents the desolation of bombing and the blind advance of enemies, the plain where opposing and antagonistic forces fight, the plane of desolation and death by crossfire. Who is responsible? Perhaps those fiery Settembrini and Naphta who debated ideas with passion, or perhaps an evil genius called the course of the world, which disrupts and distorts everything, turning everything into fury and destructive perversity.

The option of peaceful coexistence, the civic eutopia of education and school, seems to have been unsuccessful, and the sad thing is that this young man, the product of a turbulent time, who only aspired to have

his own voice and criteria in the face of adulthood and obsolescence, has been sacrificed and, with him, the best of humanity, the eternal that never dies, the innocence of youth.

In a letter to his brother Heinrich, Mann says: «Everything boils down to metaphysics, music, and eroticism: *the self never leaves puberty*» (Reich-Ranicki, 2003, p. 84). The vicissitudes of that young, adolescent blood, who were, are, and will be the last to be recruited, students or job seekers, who know what war is because they have been unexpectedly mobilized for it, who could never have imagined that supreme courage of being thrust into battle. «Now they are here, their young blood achieves everything, their bodies, excited and sacrificed, kept in tension by deep vital reserves, do not demand lost sleep or necessary food» (ZB, p. 981; MM, p. 946).

Philosophers do not seek or intend to frighten young people with the dangers of war; they do not practice inane and short-sighted anti-warism or pacifism. The aim is to bring about mature reflection on the dichotomies of the philosophy class and the world around it, but not only there. The discussion is a confrontation of opinions and reasons, leaving beliefs aside, on the meaning of culture and the theory/practice dichotomy.

Is the exercise of philosophy not perhaps an attempt not to «separate love of oneself from love of humankind»? (Reich-Ranike, 2003, p. 47). Are not the victims who have fought in all the wars that have been and will be the best representation of humanity? Who declares war and orders millions of young people to enlist in the army, so that they fall in fields and trenches, in forests and villages burned by bombing? Young people are the ones who have fallen in all wars.

They are a single body, calculated in such a way that, despite heavy losses, they can act and win, and celebrate victory and shout a thousand cheers! [...]. More than one has distinguished himself insofar as he has fallen in this violent march (ZB, p. 982; MM, p. 946).

Faced with the absence of reflection typical of the front and the trenches, today's reader is forced to reflect because the war has not passed, or rather, because of the threat and the possibility. Is it not the tenderness and innocence of those who have fallen in wars that should lead us to reflect on the injustice and cruelty of war? For young people are the same in all times, their vicissitudes and destinies similar. There is no talk of war being an inevitable fate, that it is worth thinking about it in order to learn from the past. It is regrettable that society in general is not trained to have the civil courage and ethical audacity to oppose war.



Other images could be evoked, riding horses or swimming at the beach, strolling with one's beloved along the shore, lips on her ears... Instead, there they lie with their faces in the mud (ZB, pp. 982-983; MM, p. 947).

The writer, perhaps due to professional bias, has no choice but to evoke the simplicity and goodwill of the young combatants, who continue to think of the sweetness of love and the golden dream of their fulfilled love. Mann's narrative genius alludes to the myth of sweet youth, which modern adult society has commercially exploited as a lure to dream of it as a happy state of humanity.

Towards the end of the novel, a naive character in the story, who will most likely be among the dead on the battlefield, is found humming two verses of a love song. It is not known for certain whether he has fallen; the war is so impersonal that it disfigures even Hans's face with its blond beard. A few steps away, a shell explodes, the product of a mad science; he could be wounded, but carried away by an insane warrior's ardor, he gets up, walks, staggers, limps forward, and the love song sounds from his lips. The narrator claims that we lose sight of him, but what really happens is that Castorp from the Davos sanatorium has ended up on a battlefield in Europe.

Could one ask whether cheerful and carefree youth can end up like the protagonist of this story? That is not the case, but rather the similarities between that spoiled child of life, who was able to escape the pressing needs of business for seven years, and our schoolchildren, unconcerned with abstract ideas such as life, love, and death. Survival as species depends on the paradox that has taken shape in Castorp. In this experience, the only gain is spiritual, if only because the protagonist fell in love for the first time with an enigmatic woman with Tartar eyes.

Conclusions

The teaching of philosophy can be described, since Plato, as the «co-action» exerted on the student to carry out the *apagōgē* or shift from their immobile and static position with respect to time and its events, in order to verify the movement, change, and dynamism inherent in the temporal. This allows for the erasure and abandonment of the cavernous fixity of time, if we may use the expression, as well as the relentless destiny of human finitude and transience. In this case, we have seen that the prism or lens chosen by Mann has been, like a corrective lens, health or its absence in the form of illness. The etymology of this, *infirmitas* or *infirmus*, de-



notes a lack or absence of firmness, strength, energy, or power, Castorp's initial syndrome, who, we recall, was not a tuberculosis patient.

Specifically, faced with the dichotomy of whether to teach content or teach for life, it seems that the novel combines the attitude of young people towards the difficulties of illness and could stir up their ideas about human health. In short, there is no subject, especially in the field of philosophical reflection, that does not have substantive content and does not teach for life. What may be somewhat original is to introduce, to bring into each person, a reflection on time in extraordinary circumstances, if any are ordinary, such as those of illness, to create tension between time that seems to stand still, the present captured as an infinite succession of moments, and time in motion, the now that ceases to be in the next instant, and the present that becomes the past with the speed with which the succession of moments occurs.

Education, as analyzed in previous sections, must formulate chapters for health education within an ethical framework based on the principles of responsibility, freedom, autonomy, and solidarity. In this sense, this conception goes beyond the mere absence of physical or mental illness.

Taking into account the problem from which we started, war happens behind the backs of its protagonists, i.e., the young people who fight in it. The novel *MM* is presented as spiritual diagnosis of a time of war tragedy, where physical illness translates into spiritual illness. The great metaphor of *MM-ZB* places the reader before two young men, who are practical beings (an engineer and a soldier), who only aspire to cure their illness and recover from it, and not necessarily to be wise. Their recovery is the condition for their freedom outside the sanatorium.

The hermeneutic analysis applied to Mann's work raises the need to take philosophy as a form of personal development, in the concrete mode of civic eutopia, to be developed in the classroom. Here, there must be a confrontation between conflicting points of view (Settembrini and Naphta as examples), which must be «reconciled.» If we are to be cured, extremes must be reconciled (*MM*, pp. 519-520). It does not advocate the instrumentalization of philosophy, but rather the conversion of health—literally and metaphorically—into the fundamental content of philosophical reflection.

What is interesting for teaching is the shared reflection on time: the time of illness, experienced in the novel as a formative time, is a time without measure, monotonous, almost eternal; it passes without awareness, because the sick person is barely aware of its passing (*MM*, p. 553). Each of the protagonists devotes it to themselves, as they mature and



change their image of themselves, as if they were going through a learning process: «The time that passes here is not time» (MM, p. 556), they are personal experiences that make them forget, because they are the correlate and consequence of the attitude that initiates reflection: wonder. «The boy contemplated that spectacle with that childlike gaze that goes beyond sensory appearances and penetrates the essence of things» (ZB, p. 603; MM, p. 590). If one looks closely at the object of the young man's amazement, one finds an essential key to understanding the work.

What amazes Castorp is Naphta's father's profession, *shoshet*, Jewish ritual slaughterer, a profession he has chosen «out of a spiritual inclination and, given the fragility of his body, moved by a force related to the sparkle in his eyes» (ZB, p. 603; MM, p. 590). The context of the sentence about Castorp's amazement is not trivial, as it refers to the contrast between two antagonistic rituals of animal sacrifice in the slaughterhouse: the Christian and the Jewish. Naphta's own childlike gaze, as he watches his father slaughter the animal, penetrates and transcends the sensory to plunge into the essential, which is nothing other than the *spiritual context of sacrifice*.

Regardless of the historical context, which was not at all favorable to Semitism, but quite the opposite, the phrase concisely sums up the meaning of reflection as a paradox, whether in a tuberculosis sanatorium or a philosophy classroom. Naphta has experienced that piety-devotion is linked to cruelty, just as the smell and sight of blood gushing from sacrificed cattle is related to the idea of the sacred and the spiritual (ZB, p. 693; MM, p. 590). But the fate of Naphta's father was, paradoxically, to be crucified by a crazed Christian mob, accused of killing children of this faith.

Therefore, another of the relevant points that this hermeneutic analysis has sought to emphasize is associated with the finitude and transience of the human in relation to a didactic philosophy of health, which effectively allows for education in the face of the physical and mental illness that so overwhelms these turbulent days.

Young people of any era can learn from Castorp's example that the experiences of both cousins in the mountains temper a fundamental ethical state of mind, to which death on the battlefield is no stranger (Mann, 1993, p. 17). The sacrifice of innocence, of puberty, in war, serves as an urgent call for reflection. Can society pacify life? The conquests of the soul, the necessary development of critical thinking regarding the waves of violence and terrorism, emphasize the current need to integrate ethics as a fundamental philosophical discipline.



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Declaration on the use of artificial intelligence

The authors Amada Cesibel Ochoa-Pineda and Cayetano José Aranda-Torres of the article entitled Thomas Mann's *The Magic Mountain* and its contribution to civic-ethical education, **DECLARE** that the document was not produced with the support of Artificial Intelligence (AI).

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TOWARDS AN UNDERSTANDING OF MATHEMATICAL IMAGINARIES IN CONTEMPORARY SECONDARY EDUCATION

Hacia una comprensión de los imaginarios matemáticos en educación media contemporánea

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Abstract

The research explores the mathematical imaginaries in middle school students and their influence on learning and attitude towards mathematics. A theoretical framework is established to explore how beliefs and social practices shape the mathematical constructions of students, allowing the identification of the meanings and creations of reality configured around this discipline and its impact on the teaching and learning processes. The qualitative methodology, with an inductive approach, used semi-structured interviews with 20 students selected by convenience, considering variables such as gender, origin and academic performance to ensure diversity. The data were analyzed using grounded theory and systematic coding, allowing emerging categories to be identified that enriched the analysis. The results reveal positive perceptions, such as the practical usefulness of mathematics in daily life and the development of critical thinking, which foster a proactive attitude towards learning, while negative perceptions, such as anxiety, generate significant barriers. The creations reflect how students integrate mathematics into their daily and professional lives, highlighting both benefits and challenges. In conclusion, the inductive approach revealed a dual sketch of mathematical imaginaries: pressure and anxiety in the face of critical skills and empowerment, influenced by rigid methodologies and gender stereotypes, in contrast to cognitive flexibility and preparation for the future.

Keywords

Education, Learning, Secondary Education, Mathematics, Imaginaries, Induction.

Resumen

La investigación explora los imaginarios matemáticos en estudiantes de educación media y su influencia en el aprendizaje y en la actitud hacia las matemáticas. Se establece un marco teórico para explorar cómo las creencias y las prácticas sociales moldean las construcciones matemáticas de los estudiantes, permitiendo identificar las significaciones y creaciones de la realidad configuradas en torno a esta disciplina y su impacto en los procesos de enseñanza-aprendizaje. La metodología cualitativa, con enfoque inductivo, utilizó entrevistas semiestructuradas a 20 estudiantes seleccionados por conveniencia, considerando variables como género, procedencia y desempeño académico, para asegurar diversidad. Los datos fueron analizados utilizando la teoría fundamentada y codificación sistemática, permitiendo identificar categorías emergentes que enriquecieron el análisis. Los resultados revelan percepciones positivas, como la utilidad práctica de las matemáticas en la vida diaria y el desarrollo del pensamiento crítico, las cuales fomentan una actitud proactiva hacia el aprendizaje, mientras que percepciones negativas, como la ansiedad, generan barreras significativas. Las creaciones reflejan cómo los estudiantes integran las matemáticas en su vida diaria y profesional, destacando tanto los beneficios como los desafíos. En conclusión, el enfoque inductivo reveló un boceto dual de los imaginarios matemáticos: presión y ansiedad frente a habilidades críticas y empoderamiento, influenciados por metodologías rígidas y estereotipos de género, en contraste con la flexibilidad cognitiva y la preparación para el futuro.

Palabras clave

Educación, aprendizaje, enseñanza secundaria, matemática, imaginarios, inducción.

Introduction

From an educational perspective, the inductive approach promotes the co-construction of knowledge based on concrete experiences, facilitating the understanding of concepts in real contexts. According to Flick (2018), induction allows for a deep and nuanced understanding of educational



experiences, highlighting the importance of taking into account both the subjective perspective and the specific context of students within educational processes.

The present study aims to explore how mathematical imaginaries influence the academic and personal trajectories of secondary school students. The main problem lies in how students' imaginaries influence their attitudes toward the discipline and their academic performance. The relationship between these creations and the learning of mathematics in secondary education is fundamental, as it directly affects students' perceptions of their ability to face mathematical challenges and develop competencies in this area. By framing the study epistemologically within social constructivism, as proposed by Vygotsky (1978), it is emphasized that learning is a socially mediated process in which knowledge is formed through constant interaction between people and their environment. This approach is essential for understanding how students develop meanings around mathematics, influencing their attitudes and motivations toward the discipline. In this sense, the central idea is that mathematical imaginaries play a fundamental role in shaping students' attitudes toward mathematics, affecting both their motivation and their academic and personal development. A qualitative methodology with semi-structured interviews and an inductive approach was used, which allowed identifying emerging patterns and meanings in the students' experiences.

This study is particularly relevant because secondary education is a crucial stage for consolidating knowledge, defining interests, and developing skills that will directly impact students' future decisions (Eccles & Roeser, 2009; Hernández *et al.*, 2024). Mathematics plays a decisive role not only as a formative discipline but also as a tool for developing analytical skills and solving complex problems (NCTM, 2000).

Mathematics, as a formal discipline, is characterized by its abstract, logical, and axiomatic structure, based on modeling, demonstration, and analysis of quantitative problems (NCTM, 2000). These processes follow a predominantly deductive logic, moving from general principles to specific conclusions. However, mathematics teaching often uses an inductive approach, leading students from concrete cases to abstract concepts (Hjelte *et al.*, 2020). This combination facilitates the connection between formal mathematics and its application in everyday situations, significantly impacting students' personal and professional skills, an aspect that is highlighted in contemporary approaches to inductive methodologies applied to mathematics education.

It promotes the strengthening of cognitive skills, such as logical thinking and decision-making, complemented by the development of emotional skills, such as self-confidence. Understanding how meanings and creations of reality affect self-confidence, problem-solving, and the ability to face challenges is vital for the comprehensive development of students, as these skills are fundamental throughout life (Parada *et al.*, 2024b). Mathematical imaginaries, understood as the meanings and creations of reality in that context, play a crucial role in shaping students' identity and attitudes toward mathematics (Parada *et al.*, 2024a).

An individual's sociocognitive configuration, explored through an inductive approach in the educational context, shows how individual cognitive processes interact with social factors to shape students' perception and participation in their learning environment (Bandura, 1997; Saharrea, 2022). Imaginary meanings, as collective constructions, serve as interpretive frameworks for understanding shared reality (Castoriadis, 1997; Cegarra, 2012). Furthermore, according to Maslow (1943), satisfying basic needs is key for students to achieve self-actualization and fully develop their cognitive and sociocultural potential. Self-regulation and cognitive flexibility are essential in this process, allowing adaptation to academic challenges (Pintos, 1995).

Social imaginaries, according to Castoriadis (1997), are shared mental representations that a society creates to understand and structure its reality. In education, these imaginaries affect the way students perceive and relate to learning, fostering motivating attitudes or creating barriers. Understanding these imaginaries is crucial for developing pedagogical approaches that address both the academic needs and the cultural and psychological dimensions of learning. Integrating these imaginaries into educational analysis allows for contextualized and effective interventions, enriching the construction of knowledge and attitudes toward mathematics (Castoriadis, 1983; Silva, 2006).

Inductive exploration of mathematical imaginaries in secondary education reveals a complex interrelationship between individual perceptions and educational contexts. This research seeks to identify how students construct their meanings around mathematics and explore how these constructions influence their academic and personal trajectories. Through a hermeneutic perspective and an inductive approach, the aim is to find elements that have an impact on students' academic and personal development and that contribute to the promotion of the comprehensive and sustained development of mathematical skills.



This document is organized into five sections: elements that outline a theoretical framework are presented, followed by the methodology used, then the results, the discussion, and finally the conclusions.

Inductive approach in mathematics education

The inductive method, essential in the social sciences, is based on observation, analysis, and systematization of data for the formulation of general theories (Cohen *et al.*, 2018). In the field of education sciences, this approach allows for an understanding of educational dynamics and processes through the systematic collection of individual and collective experiences (Creswell & Poth, 2018). Induction fosters a deep understanding of how students construct knowledge and meaning, allowing for the creation of pedagogical strategies based on real evidence (Merriam & Tisdell, 2016). This method is particularly useful in the study of mathematics in secondary education, where students' imaginations and perceptions influence their learning and attitudes toward science, technology, engineering, and mathematics (STEM) disciplines (Boaler, 2022).

Efforts have been made in the literature to highlight the importance of creating learning environments that promote collaboration and dialogue, allowing students to reflect on their experiences and build knowledge collectively (Sawyer, 2014). In this context, inductive methodology not only facilitates the identification of patterns and trends in student perceptions, but also provides a solid basis for developing pedagogical interventions that respond to students' specific needs (Darling-Hammond *et al.*, 2019).

In pedagogy, the relationship between induction, experience, and action is fundamental to the construction of meaningful knowledge (Dewey, 1938). The student's experience, understood as their direct and practical interaction in the learning environment, provides the raw material for the inductive process (Kolb, 1984). Through reflection on these experiences, educators can identify patterns and trends that inform teaching strategies to optimize learning (Schön, 2017; Romero, 2024). In mathematics, this triad allows us to address students' imaginaries, understanding how their personal and collective experiences shape their conceptions and attitudes toward the subject, thus influencing their future career choices in STEM areas (Sfard, 2008).

The implementation of the inductive method in secondary education allows educators to capture and analyze students' meanings and

creations of reality around mathematics (Ernest, 2018). Understanding these elements of the imaginary is vital, as they directly influence their predisposition toward STEM careers (NCTM, 2013). Education based on induction, experience, and action not only improves mathematical learning but also enhances students' overall development, preparing them for academic and professional challenges (Bransford *et al.*, 2000).

Hermeneutics of student experiences in mathematical learning

Bibliographic research, understood as the in-depth and systematic analysis of existing literature, is an essential pillar in the construction of rigorous academic studies. This journey has covered both classical theories and recent advances in education and mathematics, allowing us to map the epistemological landscape of the inductive method and intertwine perspectives that enrich our understanding of the phenomenon under study. From social constructivism to grounded theory, the importance of interpretation, critical reflection, and pedagogical adaptation is highlighted. Rather than compiling information, it is interpreted and synthesized, building a solid foundation that guides the exploration of mathematical imaginaries in secondary education and ensures conclusions grounded in a multidimensional theoretical framework.

Grounded theory, developed by Glaser and Strauss (1967), complements the pedagogical approach supported by induction, experimentation, and action through the systematization of everyday situations. This approach is particularly relevant in the study of mathematical imaginaries, as it integrates the investigative and educational dimensions to explore how students conceptualize and experience mathematics in their daily and academic lives (Charmaz, 2014).

The hermeneutics of mathematical experiences in secondary education focuses on interpreting the meanings and creations of reality configured by students around learning the discipline. This approach is crucial for understanding how students develop mathematical competencies and how these competencies influence their development (Tillería Aqueveque, 2023). The literature suggests that being mathematically competent involves not only mastering concepts and procedures, but also developing communication, reasoning, and problem-solving skills in mathematical contexts (Rico & Castro, 1995; Escudero *et al.*, 2012). This hermeneutic study allows us to identify how students perceive and construct their



mathematical reality, which can significantly influence their motivation and academic performance (Kaskens *et al.*, 2020).

On the other hand, the hermeneutics of student experiences in the classroom allows us to identify the factors that facilitate or hinder learning. Positive attitudes toward mathematics and the perception of competence directly influence motivation, which favors academic performance (Gjicali & Lipnevich, 2021). In addition, an inductive approach to mathematics teaching promotes reflection on previous experiences and adaptive pedagogical action, which can significantly improve learning and attitudes toward the subject (Murphy & Ingram, 2023). This knowledge is essential for adjusting teaching methods to respond to the specific needs and contexts of secondary school students.

Methodology

This research takes a qualitative approach, using the inductive method to explore the meanings and creations of mathematical imaginaries in secondary school students. This approach allows for a deep understanding of the participants' experiences and perceptions, as it focuses on interpreting phenomena from the perspective of those involved (Taylor *et al.*, 2016). The choice of the inductive method is based on the need to generate theories based on data obtained directly from students, rather than testing pre-existing hypotheses (Thomas, 2006). This methodology is suitable for exploratory studies that seek to discover new dimensions of the phenomenon under study (Corbin & Strauss, 1998).

A system of categories was established in which the unit of analysis or variable corresponds to «the meanings and creations of reality in the teaching and learning processes of mathematics configured by secondary school students» (Parada *et al.*, 2024b). This system is structured as a theoretical construct that considers the categories «social construction of reality» (Berger & Luckmann, 1967), «learning environments» (Vygotsky, 1978), and «implications of mathematics in being» (Boaler, 2022). The construction of these categories is based on both relevant theoretical references and direct observation of educational practices. The theories made it possible to identify relevant epistemic approaches, while observations in school environments provided empirical evidence that refined the categories, ensuring their relevance in educational practice. Table 1 illustrates these categories and their interrelationships, providing a conceptual framework for analysis.

Table 1
System of categories of mathematical imaginaries

Unit of observation	Category	Subcategory
The meanings and creations of reality in the teaching and learning processes of mathematics configured by secondary school students.	Social construction of reality	Worldview
		Collective subjectivities
		Social and academic evolution
	Learning environments	Physical context
		Social context
		Digital context
	Implications of mathematics on the self	Mathematical competence
		Life project
		Educational innovation
		Educational quality

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A semi-structured interview script was designed with the support of the aforementioned category system, allowing the participants' experiences to be explored without losing sight of the research objectives (Kvale & Brinkmann, 2009). This instrument included open-ended questions to explore mathematical meanings and creations, as well as their perceptions and influences on the educational experience. The structure of the semi-structured interview balances the researcher's guidance with the interviewee's freedom, facilitating both in-depth exploration of specific aspects and natural and meaningful interaction (Patton, 2015).

As a theoretical expression turned into a qualitative collection tool, it was validated in content with the support of three experts with expertise in test theory, another in education sciences with a specialization in mathematics teaching, and a third in social imaginaries. Expert validation ensures that the instrument is appropriate and relevant to the research objectives.

The qualitative instrument was applied to twenty secondary school students, specifically in grades 10 and 11, belonging to Colegio Oriental Educational Institution No. 26 in San José de Cúcuta, North of Santander, Colombia. These grades were chosen because they represent a critical moment in secondary education, when students consolidate their understanding of mathematics and define their academic and professional interests, especially in STEM areas. In addition, as they are about to

graduate, they have accumulated experiences that allow them to reflect deeply on the impact of mathematics on their school career.

The students were selected through convenience sampling, seeking to include both outstanding and non-outstanding students and to ensure representation of indigenous communities, people displaced by conflict, and gender balance. This technique allows information to be obtained to explore experiences and perspectives within their particular context.

The data collected were analyzed using grounded theory (Glaser & Strauss, 1967), a systematic approach that facilitates qualitative analysis to generate theories based on such data. In this work, grounded theory was activated to develop an emerging system of categories that captured the meanings and creations of students' mathematical imaginaries. This approach, aligned with the inductive method, allowed concepts and patterns to emerge organically from the participants' experiences, building the theoretical framework from the reality explored.

The process began with open coding, identifying key concepts related to the students' experiences. These concepts were preliminarily grouped into the initial categories: «Social construction of reality,» «Learning environments,» and «Implications of mathematics on being.» This early integration allowed the concepts to be aligned with the study objectives, exploring the relationships between individual experiences and their educational context. During selective coding, the categories were integrated into a cohesive theoretical framework that reflected both the emerging patterns and the central meanings identified in the data (Corbin & Strauss, 2015). The initial category system was enriched as new ideas emerged, ensuring that the final framework was closely aligned with the participants' actual experiences.

Analysis and results

The interviews were transcribed and analyzed with the support of the N-Vivo program (Jackson & Bazeley, 2019; QSR International, 2020), facilitating the coding process. This initial category system (Table 1) was used to structure the interviews and analyze the collected data, providing an initial theoretical framework that was modified and enriched during the analysis. Initially, open coding was used to identify and label key nodes or concepts in the data, allowing for an initial grouping of responses into relevant themes. Next, axial coding was applied, in which the relationships between these concepts were explored, grouping them into broader

nodes or categories. Finally, in selective coding, the main categories were integrated and synthesized into a coherent theoretical structure. This process revealed an emerging system of categories based on students' meanings and creations about the processes of teaching and learning mathematics. Table 2 shows the emerging system of categories, which served as the basis for subsequent analysis.

Table 2
Emerging category system

Unit of observation	Category	Emerging subcategory	Subcategory
The meanings and creations of reality in the teaching and learning processes of mathematics shaped by secondary school students.	Social construction of reality	Cognitive and methodological aspects	Worldview
		Mathematical relevance and necessity	Collective subjectivities
		Educational challenges and opportunities	Social and academic evolution and academic
	Learning environments	Infrastructure and resources	Physical context
		Risks in the use of digital educational resources digital resources (RED)	Social context
		Adaptation and personal perceptions	Digital context
	Implications of mathematics on the self	Changes in mathematical competence	Mathematical competence
		Personal and professional impact	
		Financial decisions and practical usefulness	Life project
		Emotions and perceptions	Educational innovation
		General challenges and barriers	
	Barriers to learning	Educational quality	

The development of the analysis allowed us to structure an explanatory theory about the meanings and creations of reality in the teaching-learning processes of mathematics configured by secondary school students, based on the initial category system. This analysis is based on the initial categories defined in the proposed system (Table 1). The explo-



ration of the data allowed the emerging subcategories to reformulate and enrich the original subcategories. Each emerging subcategory in Table 2 reveals critical aspects of how students interact with mathematics, providing a solid basis for reflection on aspects that could establish elements for improvement in pedagogical approaches and the creation of effective and meaningful learning environments. The interconnection between categories, codes, and emerging subcategories enriched the analysis, providing a broad view of the social and academic reality, as detailed below for each category.

Social construction of reality

Students highlighted the integration of mathematics into their daily lives, recognizing its value beyond the immediate. Comments such as «it helps me think clearly» demonstrate its relevance to logical thinking. These perceptions emerged inductively as recurring patterns that align student experiences with the study's conclusions. Several students pointed out practical examples of the application of mathematics, such as solving problems related to budgeting or time. These experiences highlight its practical relevance and contribution to comprehensive education, consolidating mathematics in the sociocognitive environment (Parada *et al.*, 2024b). The sociocognitive approach shows that mathematical cognition is influenced by the social environment. Students see mathematics not only as a logical tool, but also as a useful resource for facing challenges, strengthening critical skills, and problem solving. This is reflected in positive attitudes toward the discipline and in their commitment to personal and academic improvement, providing a solid foundation for personalized teaching strategies.

Learning environments

Within this category, students highlighted how the physical context affects their educational experience. Several pointed out that excessive heat and noise make it difficult for them to concentrate and perform academically. One student commented, «On hot days, it is impossible to concentrate because there are no fans in the classroom,» while another said, «Sometimes it is hard to hear the teacher because of the noise outside or in the hallways.» These environmental conditions not only limit their ability to concentrate but also negatively impact their academic performance.

In terms of social context, the interviews revealed that positive interactions—collaboration among peers and support from teachers—



contribute significantly to learning mathematics. One student said, «When we work as a team, I can understand difficult problems better,» highlighting the value of collaborative work. However, obstacles related to social dynamics also emerged, such as fear of ridicule: «Sometimes I don't ask questions because I think they'll make fun of me,» which shows how social dynamics affect motivation and learning.

In the digital context, students identified both challenges and opportunities in the use of RED. Some mentioned technical difficulties, such as unstable Internet connections: «It's frustrating when class is interrupted by connection problems,» while others valued the opportunities offered by online platforms: «Digital resources help me practice what I didn't understand in class.» These experiences show that, while digital resources enrich learning, they also present challenges in terms of access and proper use of technology.

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Implications of mathematics on the self

Mathematical competence reveals how students perceive learning as a process that transforms their self-efficacy. One student commented: «I used to think I wasn't good at math, but now I can solve problems faster,» showing an improvement in his academic confidence. This development highlights mathematical skills not only as academic competencies, but as practices that foster motivation and the overcoming of academic challenges.

In terms of life plans, the interviews showed that mathematics influences personal and professional decisions. One participant said, «I want to study engineering because mathematics is key,» while another said, «Managing budgets helps me plan my financial future,» underscoring the relevance of this discipline both in achieving academic goals and in managing daily life.

On the other hand, educational innovation emerged as a relevant topic. Students highlighted that approaches such as gamification make mathematics more attractive: «Classes are more fun with games and applications,» said one of them. However, they also pointed out the need to diversify methodologies to improve educational quality. In addition, emotions such as frustration and satisfaction were shown to have a significant impact: «I get frustrated when I don't understand, but when I solve a problem, I feel like I can achieve anything,» confessed one student, highlighting the importance of addressing both emotions and barriers to learning.

The process of recognizing the meanings and creations of reality in the context of learning mathematics is based on a detailed analysis of

the perceptions and experiences expressed by students during interviews. Emerging patterns show how they apply mathematics in their daily lives—when managing their time or handling budgets—and in their academic development, using logical thinking to approach other disciplines. One student stated: «Thanks to mathematics, I organize my time better and also understand science problems better.» The use of mathematics in these contexts strengthens skills such as self-efficacy and the ability to overcome challenges. These interpretations influence not only their immediate learning but also the construction of their life project, guiding personal and professional decisions. Positive perceptions boost their motivation and confidence, promoting academic performance and the resolution of challenges in everyday life. The following sections delve deeper into these experiences, revealing how they influence students' personal and professional development.

Meanings of reality

The meanings of reality identified provided a comprehensive understanding of how secondary school students interpret and value mathematics within their academic and personal contexts. These meanings encompass several dimensions, such as personal emotions and perceptions, the impact of the physical environment, teaching strategies, social interactions, and the practical applications of mathematics. Table 3 presents meanings such as the perception of mathematics in everyday life, the impact of environmental conditions on concentration, and the influence of social interactions on academic motivation.

These meanings reflect positive factors—such as the development of self-efficacy and motivation—and challenges related to the physical and emotional environment. This analysis provides a solid basis for understanding how students' interpretations of mathematics influence their learning process and personal development. Personal emotions and perceptions play a crucial role in how students relate to the subject, ranging from anxiety and rejection to interest and satisfaction, which directly influences their motivation and academic performance. On the other hand, the collective recognition of mathematics is significant, highlighting its importance in social and academic contexts, which enhances collaborative learning and contributes to the creation of social interaction environments for learning mathematics.

Table 3
Meanings of reality identified in mathematics learning

Dimension	Meanings
Emotions and perceptions	Perspectives from personal emotions and perceptions
	Competence and self-efficacy as elements of learning
	Negative reactions to traditional methods
Physical environment	Negative influence of comfort and climatic conditions in the classroom
	Negative physical impact on concentration
	Personal perceptions of negative physical impact
	Negative impact on learning conditions
Teaching strategies	Positive influence of guidance and teaching methods
	Evaluation and complementation of the traditional method
	Criticism of the effectiveness of REDs in mathematics
Social interactions	Negative impact of social behavior and conduct
	Influence of social interactions
	Collective recognition and appreciation of mathematics
	Positive educational interactions and relationships
Practical application	Perception of mathematics in everyday life
	Personal and emotional development through mathematics
	Positive learning experiences
External and personal factors	Impact of personal and external factors
	Negative influence of environmental factors
	Influence on career and personal life decisions

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Creations of reality

Creations of reality show how students construct and transform their environment through learning and applying mathematics. These creations reflect their ability to adapt mathematics to different contexts, highlighting its versatility in everyday life. Students who study mathematics develop a holistic and practical understanding of decision-making and problem-solving. In addition, learning mathematics can redefine

career paths and open up new opportunities. Finally, mathematics contributes to personal and social development, fostering self-knowledge and essential social skills. Among the relevant creations of reality are: the adaptation and applicability of mathematics in different contexts; professional development and transformation through mathematical learning; and the exploration, recognition, and expansion of the social self through the integration of this discipline into everyday life.

At this stage of the study, a triangulation process was used to integrate qualitative and quantitative data in order to corroborate and enrich the findings (Denzin, 2017). The process was carried out by combining qualitative analysis based on grounded theory with quantitative measurements obtained from the *software*. The purpose was to ensure that the qualitative results identified in the interviews—such as the meanings about the perception of mathematics in everyday life and the challenges in the learning environment—were validated by their frequency of occurrence in the collected data.

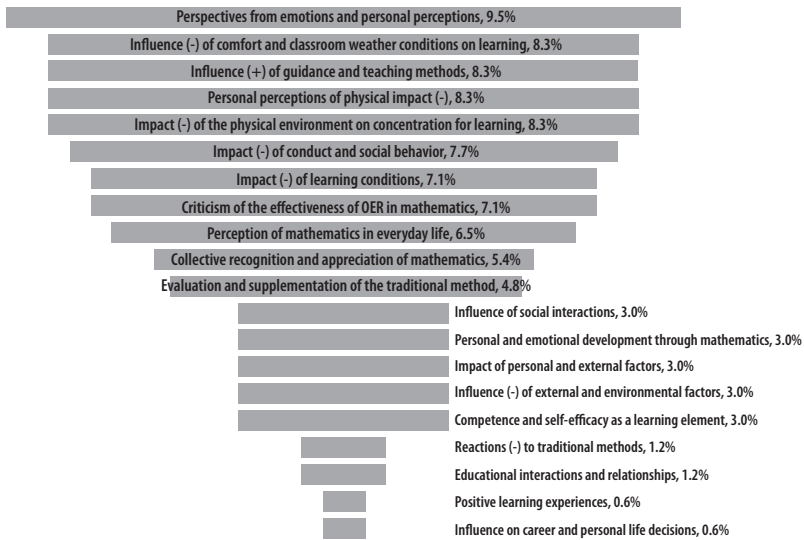
The qualitative findings presented in Table 3 and the creations of reality—such as the adaptation of mathematics and professional transformation—reflect how students shape their perceptions. Figure 1 shows the frequency of occurrence of these meanings, highlighting patterns identified in the interviews. Triangulation allowed these findings to be validated with quantitative data, also detecting differences between perceptions and observed trends. Figure 1 also represents the occurrences identified through open coding and grounded theory. Key words were analyzed with N-Vivo to quantify their frequency, linking them to the dimensions described in Table 3. This process allowed us to consolidate the relevant meanings in the students' responses.

The analysis showed that emotional perceptions, environmental conditions, and practical applicability dominate the occurrences, all with frequencies below 10%. These results reveal that students attribute different meanings to mathematics, reflecting its impact according to the educational and personal context.

Once we recognize how students shape their meanings and constructions of reality in mathematics teaching and learning processes, it is useful to delve deeper into the analysis of the incidence and impact of these perceptions and constructions. Understanding how these meanings influence motivation and academic performance, and how these creations impact their daily and professional lives, provides a comprehensive view that guides the construction of mathematical imaginaries in secondary education. This, in turn, allows for the implementation of effective

and personalized pedagogical strategies designed to foster the development of cognitive, emotional, and social skills relevant to mathematical learning and its application in everyday life.

Figure 1
Representation of occurrences of meanings in the interviews



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Impact of meanings

Knowledge of the impact of the meanings of reality on the teaching and learning processes of mathematics reveals how students' perceptions impact their performance and motivation. During the interviews, students shared diverse experiences with mathematics, commenting that they felt «stress at the possibility of making mistakes» and «fear of being evaluated negatively,» which fostered insecurity and avoidance of studying this discipline. In contrast, students who perceive mathematics as a useful tool in everyday life highlighted its importance in decision-making, budget management, and problem-solving, which increased their interest and was reflected in better academic performance. Evaluations showed that these students achieved higher grades on tests and practical assignments, demonstrating both greater conceptual understanding and active engagement in collaborative activities.

Similarly, the collective appreciation of mathematics in their social environments reinforces positive attitudes toward the subject. Some

participants noted that social recognition of the value of mathematics «motivated them to try harder,» promoting a collaborative environment in the classroom. Positive interactions with peers fostered confidence in facing challenges, facilitating an enriching educational experience. Thus, the shared perception of mathematics not only increased individual motivation but also promoted collaborative dynamics that enrich learning and strengthen student engagement.

Impact of creations

The impact of the reality creations generated by students reflects how they construct and transform their understanding of the world through learning and applying mathematics. These creations range from adapting mathematical concepts to everyday contexts to transforming their academic and professional perspectives (as discussed in the section «Creations of Reality»). This impact is manifested in students' ability to solve problems and make informed decisions, both in the classroom and in their daily lives. From an academic and professional standpoint, mathematics is positioned as a fundamental pillar in various areas of knowledge, including STEM-related disciplines. Students who identify this connection tend to see mathematics as a key tool for their personal and professional development, especially in careers that require analytical and problem-solving skills.

On the other hand, the creations of reality also reveal the challenges students face, such as academic pressure and the difficulty of connecting abstract concepts with practical situations. Overcoming these challenges through the use of RED and appropriate pedagogical support enriches their learning and fosters their self-confidence. Furthermore, this educational experience contributes to the development of social and emotional skills, thus strengthening their ability to work in teams and make decisions in complex contexts, both inside and outside the academic sphere.

A second phase of triangulation was applied in the research through additional analyses, such as branched mapping and cluster analysis. These analyses focused on keywords selected from the most frequent concepts in the interviews, linked to the meanings and creations of reality identified previously. Each term was associated with emerging themes, such as perceptions of the educational environment, the usefulness of mathematics in life, and academic challenges.

Before the final analyses, the keywords were refined to retain only the most relevant ones, eliminating redundancies and ambiguous terms



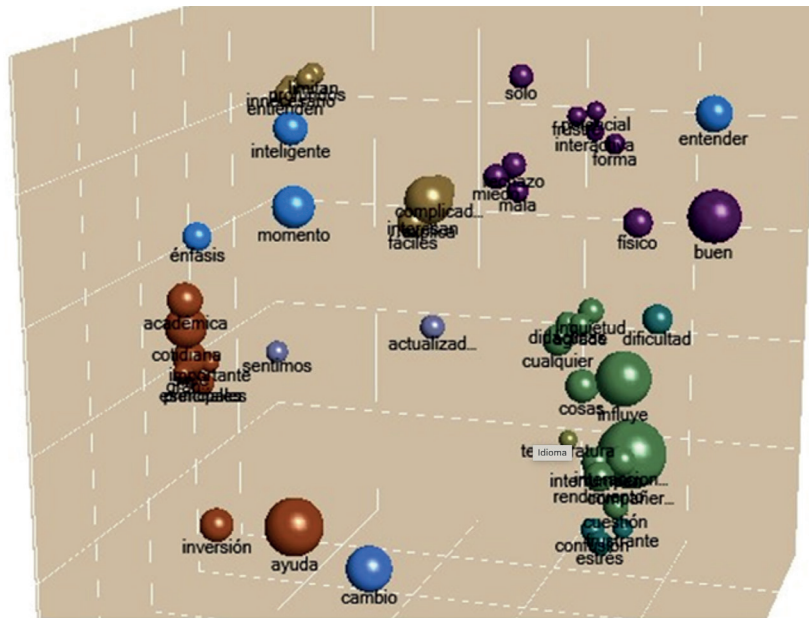
Figure 3
Branch map of words associated with the meanings
and emotional impact of interactions in the academic environment

Friends	good	daily basis	academics	works	updated	easy	rejection	performance	alone	Confusion	
			understands		complicated	interaction	matter	concern	interesting	shape	
	change	explains		Physical			stress	like	frustrating	frustrated	great
Help			intelligent	difficulty	any	interrupt		didactical	important	limit	potential
	influences	moment	investment		emphasis	afraid	bad	understand			
				things			feel	essential	Unnecessary	main	temperature
									interactive	deep	

Next, in the cluster map (Figure 4), keywords are grouped according to their frequency and thematic relationship. The size of each bubble reflects how recurrent a term is, and its proximity shows significant associations in student responses. For example, terms such as «complicated,» «interesting,» and «easy» appear together, evidencing diverse perceptions about the difficulty and appeal of mathematics. This suggests that some students find the subject challenging but appealing, while others consider it accessible. These visual representations not only identify the most relevant terms and their connections, but also offer an accurate view of the predominant concerns expressed by participants, guiding the interpretation of results in an informed way (Miles *et al.*, 2018; Simmons, 2022).

Additionally, from the cluster analysis, the words «smart,» «understand,» and «good» are grouped at the top, suggesting an emphasis on the importance of understanding and intelligence in learning mathematics. The proximity between «investment» and «help» suggests that students perceive a direct relationship between the effort invested in their learning and the support received, which improves their performance. Terms such as «difficult,» «confusion,» and «stress» are also closely associated, indicating that these feelings are common in students' educational experience, reflecting the emotional and cognitive challenges they face in their learning process.

Figure 4
Cluster analysis of words associated with the incidence of meanings and the impact of reality creations



The keywords and their relationships in the branching map, cluster analysis, citations, and nodes established in N-Vivo, together with the support of the emerging category system, served as the basis for interpreting the incidences and implications of meanings and creations in mathematics education processes. This analysis organized the elements into hierarchical descriptors, linking them to the observed occurrences and their pedagogical implications. Each descriptor was based on thematic patterns and frequencies identified in the interviews, as well as on the structure of the emerging category system. Table 4 shows these descriptors, highlighting the key relationships between emerging meanings and creations, and their impact on academic performance and student motivation.

Table 4
Global descriptors: incidence of meanings
and implications of creations

Global descriptors	Incidence/implication
Anxiety and mental blocks during assessments due to complicated questions	Pressure and anxiety
Stress from being the only subject with difficulty	
Physical environment that causes anxiety due to discomfort and affects math performance	
Intense frustration by not understanding mathematics despite great effort	
Fear and rejection of mathematics due to frustrating experiences	
Perceived difficulty in understanding abstract and impractical mathematics	Disconnection from reality
Perception of irrelevance in studying deep mathematical topics	
Need for practical relevance of mathematics in everyday life	
Demotivation due to interruptions, affected by gender stereotypes	Influence of stereotypes
Self-limitation of career due to gender stereotypes and low self-confidence	
Reinforcement of critical skills due to daily use of mathematics	Critical and decision-making skills
Interactivity with mathematics improves critical and problem-solving skills	
Recognition of mathematics as key to enhancing practical skills	
Confusion and demotivation due to lack of up-to-date teaching methods	Rigid teaching methodologies
Difficulties in understanding due to a lack of methods adapted to new generations	
Indifference due to lack of planning of activities focused on different learning styles	
Limited understanding and rejection due to inflexible methods	
Overcoming frustration due to rigid teaching methods	

Empowerment through mathematical understanding	Empowerment
Empowerment through the practical application of mathematics in everyday life	
Confidence and improved performance thanks to mathematical empowerment	
Empowerment through the usefulness and contextualization of mathematics	
Adaptability and effective problem solving thanks to the flexibility of mathematical thinking	Cognitive flexibility
Confidence and improved performance through mental adaptability	
Learning through participation, collaborative work, and understanding, not rigid memorization	
Engaging lessons and empathetic teachers stimulate mathematical learning	Preparation for the future
Innovative teaching practices influence future professional preparation	
Recognition of mathematics as essential in everyday life, work, and multiple areas of life	

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The relationship between global descriptors and incidents/implications facilitates understanding of how each descriptor affects teaching-learning processes in mathematics. For example, anxiety and mental blocks during assessments due to complicated questions are descriptors that generate pressure on students. These types of incidents affect academic performance, creating a challenging educational environment for effective learning. Likewise, the stress of being the only subject with difficulty and the discomfort of the physical environment contribute to a high-pressure atmosphere, exacerbating students' anxiety.

Another important aspect is the disconnect from reality, in which the perceived difficulty in understanding abstract and impractical mathematics leads students to feel that this knowledge is not relevant to their daily lives. This can result in a lack of motivation and a rejection of the study of mathematics. The perception of irrelevance and the need for practical relevance are descriptors that affect the disconnect with educational reality, implying an urgency to adapt the curriculum to show the applicability of mathematics in everyday contexts.

Gender stereotypes and low self-confidence limit and generate demotivation. These descriptors impact perceptions and aspirations, affecting self-efficacy and the development of critical skills. Active interaction with mathematics and recognition of its relevance in the development of practical skills are essential to counteract barriers and empower students.

Rigid teaching methods generate confusion and demotivation among students. Indifference due to the lack of activities adapted to different learning styles limits understanding and causes rejection. However, overcoming rigid methods can empower students by helping them understand mathematics through practical applications, improving their confidence and academic performance. Empowerment and cognitive flexibility are descriptors that have positive effects. The practical application of mathematics and its everyday usefulness reinforce confidence and improve performance. Adaptability and the ability to solve problems through mathematical thinking foster a flexible and resilient mindset. In addition, innovative pedagogies and the support of empathetic teachers prepare students to face the challenges of the future, recognizing the importance of mathematics in different areas of life.

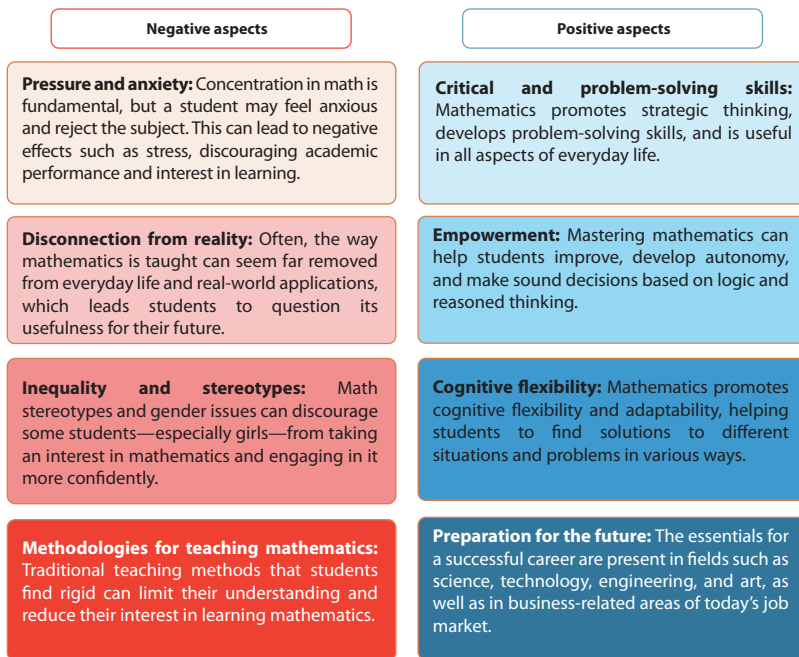
The background information has been structured to identify positive and negative impacts on students' academic performance and personal development. The descriptors were organized into categories related to impacts and implications. The results were represented visually (Figure 5), showing the positive and negative elements that shape students' mathematical experience. This analysis revealed a complex interaction between these factors, highlighting both emotional and cognitive barriers and benefits in critical thinking and professional preparation.

Figure 5 shows that the mathematical configuration in secondary school students has a dual impact, characterized by positive and negative elements. Among the negative elements, pressure and anxiety are prominent. An excessive focus on competition and performance can generate high levels of anxiety and aversion to mathematics, especially when students encounter difficulties with concepts. This pressure not only affects academic performance but also students' mental health, creating a stressful environment that limits effective learning. Furthermore, mathematics is often perceived as too abstract and unrelated to practical applications, which diminishes its perceived value and leads to demotivation.

On the positive side, mathematics fosters critical and problem-solving skills that are useful in all areas of life. These skills enable students to approach complex problems logically and efficiently, improving their

ability to make informed decisions. Empowerment is another key benefit of mastering mathematics. Students who succeed in understanding and applying mathematical concepts gain confidence in their abilities, providing them with tools to control their environment and making decisions based on logical reasoning. This empowerment contributes to better academic performance and a positive attitude toward learning.

Figure 5
Dual impact: positive and negative elements of the mathematics configuration in secondary education students



Cognitive flexibility emerged positively from the students' creations, revealing that mathematical learning enhances the ability to adapt and solve problems in various contexts. These skills are associated with preparation for future career opportunities by fostering the development of essential competencies to face the challenges of the 21st century.

Discussion

The findings of this research highlight how students' perceptions and experiences influence their mathematics learning process. The integration



of an inductive approach allowed us to explore the diverse meanings and creations of reality that students develop around mathematics. The results indicate that positive perceptions, such as appreciating mathematics as useful in everyday life and beneficial for developing critical thinking, promote a proactive and collaborative attitude toward learning. However, barriers such as anxiety were also identified, which affect students' academic performance. This dualism in perceptions underscores the need for pedagogical approaches that enhance favorable attitudes and mitigate obstacles.

Compared to previous studies, the results of this research confirm the importance of an adaptive and supportive learning environment. Research such as that of Boaler (2022) and Sfard (2008) has pointed out that personal experiences and the social construction of meaning in mathematics are crucial for the development of competencies in STEM areas. This study complements these findings by showing how empowerment and cognitive flexibility emerge in students' creations, enriching their educational experience. The systematic coding process facilitated the detection of these emerging categories, providing an interpretive basis for the complex dynamics that affect academic and personal performance. The inductive approach allowed for the recognition of significant patterns that enrich the educational process in mathematics. The organization of the analysis using *software* leveraged a robust structure for interpreting and qualitative data, delving deeper into the impact of mathematics in the educational context (Bryda & Costa, 2023; Hansen *et al.*, 2022; Taherdoost, 2022).

Although this study makes significant contributions, such as identifying meanings and creations around mathematics and using an inductive approach to capture students' subjective and contextual perspectives, it also acknowledges certain limitations. The sample, which is adequate for qualitative analysis, may not fully represent the diversity of experiences in other educational contexts. However, in qualitative research, a small sample is valid since the analysis emphasizes the quality of the data rather than the number of participants (Maxwell, 2013; Creswell & Poth, 2018). The triangulation applied strengthened the validity, compensating for sample limitations and allowing for a broad understanding of the phenomena investigated (Patton, 2015; Denzin, 2017).

Conclusions

This research, based on an inductive approach, has revealed the meanings and creations of reality that secondary school students construct around

mathematics. Through open, axial, and selective coding, patterns reflecting individual and collective perceptions were identified. The inductive method proved fundamental in capturing the complexity of mathematical imaginaries, serving as a basis for designing adapted pedagogical approaches. Data triangulation, combining qualitative and quantitative analyses, strengthened the validity of the findings and allowed us to understand how educational experiences influence the formation of mathematical attitudes and competencies.

Inducing the intangible, such as mathematical imaginaries, involves valuing students' subjective and collective experiences. The results highlight the importance of learning environments that integrate cognitive, emotional, and social aspects. Strengthening positive perceptions, such as the practical usefulness of mathematics and the development of critical thinking, fosters a proactive attitude toward the subject. In turn, it is crucial to address negative perceptions, such as anxiety and disconnection from reality, to reduce their effects. This study provides a valuable sketch of mathematical imaginaries in secondary education, underscoring the need for pedagogical approaches that respond to the complexity of the student context and promote inclusive learning.

The duality in mathematical imaginaries reveals positive and negative experiences that shape perception and academic performance. Pressure and anxiety, linked to competition and a focus on performance, can generate aversion to mathematics, exacerbated by rigid methodologies, the disconnection between concepts and reality, and cultural stereotypes. However, positive imaginaries promote critical and problem-solving skills, empowering students to approach problems logically. Mathematical learning even develops cognitive flexibility, facilitating adaptation to diverse situations and preparing students for academic and professional challenges in a work environment that demands these skills.

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Declaration of Authorship - CRediT Taxonomy	
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Declaration on the use of artificial intelligence

The authors María José Parada Carreño, Antonio José Bravo Valero, and Juan Diego Hernández Albarracín **DECLARE** that the preparation of the article entitled “Towards an understanding of mathematical imaginaries in contemporary secondary education” was supported by artificial intelligence (AI), through the use of ChatGPT 4.0 (standard non-thinking version) exclusively for the tasks of correcting writing and style in the final editing phase of the manuscript and to adjust the clarity of the responses to the reviewers, without any intervention in the theoretical or methodological content or in the results of the study.

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ENVIRONMENTAL EDUCATION FOR STRENGTHENING ECOLOGICAL AWARENESS, SUSTAINABLE DEVELOPMENT, PROSPERITY, AND HUMAN WELL-BEING

La educación ambiental para el fortalecimiento de la conciencia ecológica, el desarrollo sostenible, la prosperidad y el bienestar humano

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Abstract

Vietnam, like many developing countries, faces serious challenges from climate change, environmental pollution, and the degradation of natural ecosystems. These interconnected issues threaten environmental security, food and water resources, and the overall quality of human life. As Friedrich Engels once reminded humanity, every triumph over nature carries consequences, because humans are a part of nature, not its masters. This study emphasizes the essential role of environmental education in fostering ecological awareness and promoting sustainable development in Vietnam. By integrating environmental protection into education, policymaking, and community action, Vietnam can strengthen its resilience to climate change, enhance biodiversity conservation, and ensure long-term prosperity and human well-being. The research highlights the importance of digital transformation, legal reform, and strategic planning in encouraging sustainable practices across economic and social sectors. Strengthening environmental education will empower citizens to take proactive roles in environmental governance, inspiring responsibility and collective participation. Furthermore, digital tools and modern communication methods can expand public access to environmental information, making education more inclusive and effective. Through these combined efforts, Vietnam can move toward a green, sustainable, and adaptive future. Ultimately, environmental education is not only a means to protect nature but also a foundation for achieving the Sustainable Development Goals (SDGs).

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Keywords

Environmental education, Climate change, Sustainable development, Environmental protection, Ecological awareness, Human well-being.

Resumen

Vietnam, al igual que muchos países en desarrollo, enfrenta serios desafíos derivados del cambio climático, la contaminación ambiental y la degradación de los ecosistemas naturales. Estos problemas interrelacionados amenazan la seguridad ambiental, los recursos alimentarios e hídricos, así como la calidad general de la vida humana. Como recordó Friedrich Engels, cada triunfo sobre la naturaleza conlleva consecuencias, porque los seres humanos forman parte de la naturaleza y no son sus dueños. Este estudio enfatiza el papel esencial de la educación ambiental en el fomento de la conciencia ecológica y en la promoción del desarrollo sostenible en Vietnam. Al integrar la protección ambiental en la educación formal e informal, la formulación de políticas públicas, la acción comunitaria y la participación ciudadana, Vietnam puede fortalecer su resiliencia ante el cambio climático, mejorar la conservación de la biodiversidad y garantizar la prosperidad y el bienestar humano a largo plazo. La investigación destaca, además, la importancia de la transformación digital, la reforma legal, la planificación estratégica y la cooperación internacional para fomentar prácticas sostenibles en los sectores económicos, sociales y culturales. Fortalecer la educación ambiental empodera a los ciudadanos para participar activamente en la gobernanza ambiental, promover estilos de vida sostenibles y contribuir al logro de los objetivos de desarrollo sostenible (ODS).

Palabras clave

Educación ambiental, cambio climático, desarrollo sostenible, protección del medioambiente, conciencia ecológica, bienestar humano.

Introduction

With the arrival of the 21st century, climate change has become a problem of global importance, and no region of the planet is immune to natural or man-made disasters such as tsunamis, earthquakes, storms, floods, lands-

lides, and widespread environmental pollution. Over the last few decades, industrial and productive activities have depleted large amounts of natural resources, often with low economic efficiency compared to the losses suffered by the environment. This indicates that, in order to achieve current levels of technical development and infrastructure, humanity has exploited natural resources beyond the necessary limits due to obsolete extraction and processing technologies. These practices have led to the waste of natural resources, climate change, ecological imbalance, environmental pollution, and the increasing depletion of the ozone layer, which threatens human survival. Therefore, to protect life on Earth and ensure the continuity of nations, humanity must move toward sustainable economic development that adapts to climate change.

Dialectical materialism represents a significant inheritance and advance over previous dialectical approaches, from ancient philosophical traditions to Hegel, the culmination of classical German idealist philosophy. Marxist dialectics is considered a comprehensive framework for studying the development of the entire objective world, encompassing nature, society, and human cognition. Consequently, its scope of study and practical applications are extremely broad, with virtually no domain escaping its analytical reach.

In today's global context, humanity faces unprecedented environmental, social, and economic challenges, leading many scholars to refer to this era as the Third Age of Nature. Issues such as social inequality, poverty, conflict, environmental degradation, and the depletion of natural resources are direct consequences of unsustainable economic development. These pressures have disrupted the balance between humans, society, and nature, leading to biodiversity loss, ecosystem degradation, and increasingly severe climate change. For example, Vietnam and many other countries lose an average of 11 to 13 million hectares of forest per year, while marine ecosystems are increasingly threatened by pollution, overexploitation, and habitat destruction. These global challenges cannot be addressed by individual nations but require international cooperation, shared responsibility, and sustainable governance.

Climate change is one of the greatest challenges facing humanity in the 21st century. Its effects damage production, livelihoods, and the environment, and continue to transform natural ecosystems, socioeconomic systems, and development processes. Climate change poses a serious threat to environmental security, energy, water resources, food production, and cultural heritage on a global scale. Transboundary environmental issues are becoming increasingly complex, unpredictable, and signi-

ficant, requiring proactive strategies and adaptation measures. The pace and complexity of climate change have exceeded previous predictions, affecting multiple aspects of human life and ecosystems, while seriously threatening food security, rural and agricultural development, and industrial growth.

Developing countries such as Vietnam face particularly intense ecological pressures due to rapid industrialization, deforestation, pollution, and uncontrolled exploitation of natural resources. These challenges threaten environmental security, human well-being, and sustainable development. Although environmental awareness has been increasing, environmental education has not yet been implemented systematically, especially among primary school children, who are the future citizens responsible for environmental management.

This study aims to examine the role of environmental education in improving ecological awareness, promoting sustainable development, and ensuring human well-being in Vietnam. The research analyzes how education can encourage responsible behavior, improve ecological knowledge, and integrate environmental awareness into social practices at multiple levels. As Engels emphasized, «everything that motivates human action passes through the mind.» Therefore, for environmental protection efforts in Vietnam to be effective, individuals and communities must have a high level of environmental awareness.

In the context of accelerating climate change, biodiversity loss, and environmental degradation, environmental education is crucial. Ecological awareness must be fostered from childhood through comprehensive, culturally appropriate, and scientifically based educational programs to develop responsible citizens who can contribute to sustainable development. This study highlights the need for environmental education as a strategic approach for Vietnam to harmonize economic growth with ecological sustainability, while serving as a model for other developing nations.

Background

Traditional environmental awareness education in Eastern thought arose from the concept of unity between heaven, earth, and humanity, emphasizing harmony between humans and nature. This perspective views humans as «microcosms,» miniature reflections of the universe, capable of creating balanced relationships with their environment. From this fundamental idea, various conceptions of the relationship between humans and



nature were developed, such as: «What happens in humanity happens in heaven» and «humanity surpasses heaven» (Abe *et al.*, 2022). These philosophies laid the foundation for an ethical approach to environmental management, emphasizing respect, balance, and coexistence with nature.

For example, Lao Tzu (571-471 BC), considered the founder of ancient Chinese Taoist philosophy, articulated these ideas in the *Tao Te Ching* (2012), which presents a coherent system of thought on nature, society, and human behavior. Lao Tzu (2012) emphasized that the natural world exists independently and functions according to its own inherent order, in constant motion and transformation. Consequently, humans can only achieve harmony by aligning themselves with nature, rather than attempting to dominate or over-reform it. As Lao Tzu (2012) argues, returning to a simpler, more harmonious lifestyle and respecting the natural environment is essential for human well-being.

Building on these philosophical foundations, European thinkers such as Engels also emphasized the ethical responsibility of humans toward nature. Engels asserted that humans, whether «civilized or savage, are children of nature, not its masters» (Marx & Engels, 1995, vol. 1) and warned against excessive pride in human achievements over nature, emphasizing that such victories may provoke natural retribution (vol. 4). Although Engels' perspective may seem idealistic, the increasing frequency of environmental crises validates his warning and underscores the fundamental role of ecological ethics in contemporary society.

Similarly, Marxist-Leninist theory provides a solid framework for understanding the interdependence between humans, society, and nature. In the *Economic and Philosophical Manuscripts* (1844), Marx emphasized that the natural world is both the origin and the determinant of human activity, thus actions hostile to nature are ultimately detrimental to humanity itself (vol. 20). Engels further elaborated by stating that «in the natural world, nothing happens by itself. This phenomenon affects other phenomena and vice versa» (vol. 42), highlighting the interconnectedness of all elements of the ecological system. These ideas laid the theoretical foundation for analyzing contemporary environmental challenges and the ethical imperatives of ecological management.

Furthermore, Engels' «*dialectic of nature*» distinguishes between humans and animals in their ability to transform the environment. He warned against overexploitation, reminding humanity that «we do not dominate nature as a conqueror dominates a foreign people, as someone who stands outside nature, but rather we, with flesh, blood, and brains, belong to nature and exist in the midst of it» (vol. 42). Despite these war-

nings, industrialization and environmental degradation have proven the relevance of Engels' perspective.

Internationally, ecological awareness and environmental education have gained worldwide recognition. Between 1992 and 2010, several international summits, including the Kyoto Conference and the Johannesburg World Summit on Sustainable Development (2002), emphasized environmental awareness as a prerequisite for sustainable development (Oregon State University, 2020). These initiatives underscore that promoting ecological awareness is critical to addressing climate change, resource depletion, and biodiversity loss. For example, one ecology professor noted that «policies to combat the climate crisis must address its root cause: human overexploitation of the planet» (Oregon State University, 2020).

In Vietnam, environmental education has become increasingly urgent due to the country's vulnerability to climate change and rapid industrialization. Empirical studies highlight the importance of raising ecological awareness among students at all educational levels. For example, research shows that fostering environmental awareness among high school and university students equips them with the knowledge, ethical perspectives, and practical skills necessary to protect ecosystems, comply with environmental laws, and participate in community initiatives (Nguyen & Phung, 2024; Nguyen & Nguyen, 2023). Religious organizations, particularly Buddhist communities, also contribute to environmental stewardship through faith-inspired initiatives, promoting sustainability and mobilizing collective action (Nguyen *et al.*, 2025).

From a theoretical perspective, understanding the environment is fundamental to sustainable socioeconomic development. The environment can be defined as «all factors that directly or indirectly affect the existence and development of living organisms» (Nguyen, 2002, p. 72) or as «a part of the Earth that surrounds human beings» (Hoang, 1992, p. 635). From a philosophical point of view, the environment is inseparable from human existence, and its protection is both an ethical obligation and a practical necessity for social progress, economic stability, and the preservation of biodiversity (Hanoi Open University, n.d., p. 6).

Therefore, environmental education serves as a fundamental mechanism for fostering ecological awareness. It integrates age-appropriate knowledge, ethical norms, and standards of behavior oriented toward legality, promoting experiential learning principles such as «hearing a hundred times is not as good as seeing once, and seeing a hundred times is not as good as doing once» (Kolb, 1984). By engaging students in sustainable practices—waste reduction, biodiversity conservation, and



climate adaptation—environmental education cultivates environmentally friendly attitudes and sustainable behaviors, ensuring long-term ecological stewardship (Wals, 2019).

Environmental protection is recognized as a fundamental prerequisite for sustainable development. It involves safeguarding human habitats, conserving natural resources, and managing environmental risks in harmony with economic and social development. According to the Law on Environmental Protection, environmental protection must be integrated into economic planning, social welfare, gender equality, and children's rights (Law on Environmental Protection, 2020, pp. 14-15). Environmental protection is therefore a matter of national survival, social stability, and global responsibility.

Finally, climate change represents one of the most critical challenges of the 21st century, as it affects production, transportation, water, food, energy, and social security around the world. Both natural and anthropogenic factors contribute to its acceleration, causing extreme weather events such as floods, droughts, and heat waves. In Vietnam, adaptation to climate change is a priority, requiring its integration into socioeconomic development plans at all levels. Proactive measures include reducing greenhouse gas emissions, developing carbon sinks and renewable energy, conserving forests, and implementing climate adaptation strategies in agriculture, fisheries, and urban planning. Combating climate change requires global cooperation, community participation, and greater awareness to ensure a sustainable future.

Engels once said, «Everything that moves men must pass through their minds.» Consequently, for environmental protection activities in Vietnam to be truly effective, environmental education in communities aims to equip people with age-appropriate knowledge, ethical awareness, and behavior norms geared toward compliance with the law. Through the application of experiential learning approaches and direct participation in sustainable practices, environmental education promotes not only the acquisition of knowledge, but also the development of environmentally friendly attitudes and long-term sustainable behaviors. This approach establishes a solid foundation for ecological awareness and responsible management at all levels of society.

This principle is closely aligned with contemporary approaches to experiential learning, which emphasize learning through active participation, reflection, and real-world application. By directly involving students in sustainable practices, such as waste reduction, biodiversity conservation, and climate adaptation activities, environmental education promotes



not only the acquisition of knowledge, but also the development of environmentally friendly attitudes, critical evaluation of polluting behaviors, and sustainable behaviors that can be maintained over the long term.

Philosophical theories on environmental education

Environmental education is based on a set of philosophical traditions that help explain how individuals perceive, interpret, and act on environmental issues. These theories provide a conceptual basis for understanding the formation of ecological awareness, environmental attitudes, sustainable behaviors, and the broader relationship between human well-being and the natural environment. The following sections present the main philosophical approaches that guide contemporary environmental education.

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Deep ecology, developed by Arne Naess (1973 and 1986), holds that all living beings have intrinsic value independent of their instrumental benefits to humans. This perspective places humans as part of a broader «web of life,» challenging anthropocentric thinking and promoting a holistic view of the ecological world. Within environmental education, deep ecology makes three important contributions: A cognitive shift from anthropocentrism to biocentrism, which encourages students to adopt a respectful and humble relationship with nature. An emphasis on inner transformation, which fosters emotional and ethical sensitivity toward ecological systems, essential for strengthening ecological awareness. The promotion of sustainable lifestyles, highlighting the need to respect ecological limits and protect biodiversity as the basis for long-term human well-being. This theory forms the philosophical basis for educational programs that aim to cultivate ecological awareness and ethical responsibility.

The *ethics of care*, articulated by Carol Gilligan (1982) and Nel Noddings (1984), emphasizes the moral responsibility that arises from relationships, empathy, and care. Applied to environmental education, this approach highlights: the emotional and relational dimensions of ecological awareness; the moral duty to protect vulnerable ecosystems; the role of compassion and sensitivity in shaping pro-environmental attitudes. By integrating care-based ethics into learning processes, environmental education becomes a space for cultivating empathy toward nature and strengthening the affective foundations of sustainable behavior.

Environmental pragmatism, based on John Dewey's (1938) theory of experiential learning, views education as a process rooted in real-world problem solving and active participation. In environmental education, this philosophical tradition offers several ideas: learning through direct experience, which allows students to confront and address local environmental problems; the development of critical thinking, especially in the analysis of interactions between humans and nature; and an emphasis on project-based learning, which promotes interdisciplinary knowledge and practical action for sustainability. Environmental pragmatism thus reinforces the connection between ecological knowledge and behavior, making learning more practical and transformative.

The *eco-socialist philosophy*, promoted by thinkers such as André Gorz (1980) and Michael Löwy (2005), criticizes unsustainable patterns of production and consumption that damage ecosystems and exacerbate social inequalities. Its relevance to environmental education lies in its emphasis on environmental justice and the equitable distribution of ecological resources; the social and political roots of environmental degradation; and collective responsibility for ecological protection and long-term sustainability. This perspective encourages educational programs to integrate social justice, policy critique, and ecological integrity into learning about sustainability.

Ecological humanism holds that human development and well-being are inseparable from the health of natural ecosystems (Passmore, 1974; Sessions, 1995). It contributes to environmental education by emphasizing the intrinsic connection between human flourishing and ecological sustainability; the ethical importance of protecting natural environments; and a holistic understanding of well-being that integrates environmental, social, and spiritual dimensions. This approach aligns strongly with contemporary research linking ecological health to physical, psychological, and community well-being.

Finally, *systems theory*, developed by Ludwig von Bertalanffy (1968), views natural and social phenomena as interconnected systems characterized by interdependence and complexity. Applied to environmental education, systems theory enhances students' ability to understand ecological interconnections; explains the cascading effects of human actions within ecosystems; and supports integrated and interdisciplinary approaches to education for sustainability. This theoretical perspective is especially valuable for designing educational programs that address cross-cutting environmental challenges, such as climate change, resource depletion, and environmental governance.



Research methodology

To explore the ideas presented in depth and assess how environmental education contributes to sustainable development in Vietnam, this section describes the methodological framework used.

This study is based on a qualitative, descriptive, and analytical approach, which aims to understand the role of environmental education in strengthening ecological awareness and promoting sustainable development in Vietnam. To achieve this objective, the research employed documentary and comparative methods, supported by interpretive techniques that facilitated the examination of academic literature, government reports, and international documents related to sustainability and environmental protection.

Bibliographic records, thematic analysis matrices, and conceptual categorization tables were used as research tools to identify key concepts, theoretical approaches, and emerging trends. The research procedure was carried out in four main stages: review of the relevant literature and legal and policy frameworks; contextual analysis of Vietnam's environmental and educational conditions; synthesis of national strategies, public policies, and educational practices; and formulation of conclusions and recommendations aimed at strengthening environmental education and ecological awareness.

This methodological structure provides a solid basis for a comprehensive interpretation of the interrelationship between education, the environment, and sustainable development.

Results and discussion

This section presents the main findings of the study, structured thematically to reflect the interconnected dimensions of environmental education, ecological awareness, and sustainable development. The presentation of the results follows three key analytical perspectives:

- Natural environmental challenges.
- Socioeconomic conditions and development.
- Awareness and human behavior.
- Policies, management, and institutional aspects.
- Environmental philosophy and the role of environmental education.
- Solutions for sustainable development.

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Natural environmental challenges

One of the most pressing global issues today is the increasing degradation of the environment driven by rapid economic and industrial development. Industrial facilities, construction activities, and manufacturing operations release significant amounts of emissions and hazardous waste into the environment, contributing significantly to air, water, and soil pollution. As a result, protecting the environment has become a priority to ensure the stability of the planet and human well-being.

On the other hand, forest ecosystems—known as the planet's «green lungs»—are suffering severe deterioration due to large-scale deforestation in many countries. Over the past 12 years, more than 11,000 km² of forest have been lost in Brazil, and both deforestation and forest fires in the Amazon continue to reach record levels. Forest fires are also intensifying globally, with significant cases documented in Australia, the United States, and other regions. For example, it is estimated that last year's forest fires in Australia released 369 million tons of carbon dioxide (CO₂) into the atmosphere (Tuyen Giao, n.d.).

Global warming, accompanied by rising sea levels, represents one of the most significant environmental challenges of the 21st century. According to the World Meteorological Organization, the global average temperature for the period 2020-2024 is expected to increase by more than 1.5 °C above pre-industrial levels, mainly due to increased CO₂ and methane emissions. These greenhouse gases trap heat in the atmosphere, causing temperatures to rise. The effects are already evident: New Delhi (India) suffered its most severe heatwave in twenty years; in Japan, the city of Isesaki recorded 40.2°C on June 25, surpassing the previous national record of 39.8°C set in 2011; In the first two weeks of July, at least 44 deaths and more than 12,000 hospitalizations were recorded due to extreme heat; heat waves in the Iberian Peninsula caused more than 1,700 deaths (Tuyen Giao, n.d.).

Meanwhile, a 2022 report by Climate Central states that approximately 7.6 billion people (96% of the world's population) are currently affected by climate change (extreme heat, flooding, and other related hazards). During the period 1906-2005, the global average temperature rose by 0.74 °C, and the rate of warming in the last fifty years was almost double that of the previous half-century. Between 2001 and 2010 alone, the average temperature rose by more than 0.5 °C. Projections indicate that around 50% of plant and animal species could face extinction by 2050 if global temperatures rise between 1.1 and 6.4 °C (Tuyen Giao,

n.d.). Biodiversity loss is closely linked to habitat degradation caused by desertification, deforestation, and sea level rise, while human populations face increasing risks to settlements, food security, access to energy, and sources of income.

Finally, climate change has caused the highest rate of ice melt observed in more than 10,000 years, especially in Greenland. Environmental degradation is also associated with ozone layer depletion, which increases risks to ecosystems and human health. Drought conditions have intensified in regions such as India, Pakistan, and parts of Africa, where reduced rainfall is expected to persist for decades. It was estimated that by 2020, between 75 and 250 million people in Africa would suffer from shortages of drinking water and irrigation resources, which could reduce agricultural productivity by up to 50%. The number of severe hurricanes has doubled in the last 30 years. Furthermore, if current ice melt trends continue, sea levels could rise by at least six meters, posing a serious threat to coastal regions around the world.

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Socioeconomic and development conditions

Vietnam is one of the most biodiverse countries in the world. However, in recent years, the effects of climate change on Vietnam's ecosystems have increasingly threatened wetlands such as U Minh Thuong, Tram Chim, Lang Sen, Vo Doi, Tra Su, Ha Tien, Dat Mui, Bai Boi, and Lung Ngoc Hoang. Biodiversity has declined significantly due to forest fires, changes in land use, and habitat loss. Illegal overexploitation and trade in endangered fauna and flora also persist. As Bui and Do (2017) point out:

In recent decades, 1,088 animal species on Earth have become extinct. In Vietnam, some species can no longer be found in the wild, and currently, there are 93 species of mammals, 78 species of birds, 54 species of reptiles, 51 species of marine fish, 38 species of freshwater fish, and 105 species of invertebrates facing the threat of extinction, including 17 species of mammals and some species of birds listed by the International Union for Conservation of Nature (IUCN) as rare species in need of priority conservation and sustainable development.

Extreme and unusual weather events in Vietnam further demonstrate the ongoing effects of climate change. Climate change has also contributed to the rapid spread of infectious diseases such as COVID-19, malaria, and dengue fever, as well as an increase in cardiovascular, respiratory, and dermatological diseases. With a coastline of 3,260 km, Vietnam is highly vulnerable to sea level rise. Data collected over 51 years by

marine monitoring stations (1961-2022) indicate that sea level at Vietnamese monitoring points has risen at an average rate of approximately 2.45 mm per year. In the Mekong river system, upstream flows have decreased, with the lowest water levels in the last hundred years being recorded. The reduction in freshwater discharge has weakened the river's ability to repel seawater, causing saltwater intrusion to occur nearly two months earlier than usual and extend further inland. Monitoring data show that maximum salinity levels have consistently exceeded long-term averages and surpassed historical records. Specifically, the salinity boundary of 4 g/L extended between 90 and 95 km along the Vam Co River, between 45 and 65 km along the Tien River, between 55 and 60 km along the Hau River, and between 60 and 65 km in the western coastal region (Cai Lon River). These intrusion distances exceed long-term averages by at least 5-10 km in the western coastal region, 10-15 km along the Vam Co and Hau rivers, and 20-25 km along the Tien River.

Drought and saltwater intrusion have also affected several provinces along the central coast, from Nghe An to Ninh Thuan, with the most severe effects recorded in Quang Nam, Quang Ngai, Binh Dinh, and Phu Yen. Severe saltwater intrusion has occurred in Quang Tri and Da Nang, while extreme cold and frost conditions have affected the northern mountainous regions. In the southern region, drought and salinity have significantly affected agricultural production and livelihoods. Land subsidence, erosion, unregulated exploitation of mangroves, sea level rise, flooding, and lightning strikes have caused considerable damage in recent decades.

In 2010, the Mekong Delta recorded 99 erosion and landslide sites; by 2019, this figure had increased fivefold to 564 sites, covering a total area of 830 km. Each year, thirteen provinces and cities in the region lose between 300 and 500 hectares of land to erosion. Over the past 40 years, approximately 1,886 hectares have been lost due to landslides. In Ca Mau province alone, nearly 400 hectares are lost each year to coastal erosion. The year 2019 was identified as the year with the most severe drought and saline intrusion of the past century, with saltwater penetrating inland. The total agricultural area affected amounted to 126,798 hectares, of which 78,137 hectares suffered yield losses of more than 70% (62%), 45,740 hectares suffered losses of 30 to 70% (36%), and 2,921 hectares suffered losses of less than 30% (2%). The most affected provinces were Ca Mau (49,343 hectares), A Giang (34,093 hectares), Bac Lieu (11,456 hectares), and Ben Tre (10,755 hectares). Ten provinces in the Mekong Delta—Vinh Long, Ca Mau, Can Tho, Dong Thap, and An Giang, among others—declared natural disaster emergencies, with drought affecting ap-

proximately 155,000 households and more than 500,000 people facing water shortages. The number of people affected is expected to continue to rise, causing economic damage estimated at billions of Vietnamese dongs.

A sea level rise of 65 cm would flood approximately 5,133 km² (12.8%) of the Mekong Delta, and a rise of 100 cm would flood 15,116 km² (37.8%). These projections indicate substantial risks to settlements, infrastructure, and agricultural systems in the region. Climate change and sea level rise are expected to intensify migration from rural to urban areas, particularly from coastal agricultural communities to urban centers in the north and west. This influx may place increasing pressure on urban planning, infrastructure, and public services.

Awareness and human behavior

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Throughout history, humans have placed themselves at the center of the universe, perceiving themselves as rulers with the ability to create, exploit, and dominate the natural world. These anthropocentric perspectives underpin the belief that humans have absolute authority over nature and can use it in a dominant, exploitative, or destructive way. These views have contributed to significant environmental degradation driven by ignorance, greed, and the pursuit of short-term material gains, while warning signs from the environment have been ignored. As Nguyen (2016) observes, misunderstandings about «the seemingly inexhaustible wealth of natural resources» and failure to recognize «the limits of natural resources» have had serious ecological consequences.

The pursuit of immediate economic gains—often for the benefit of individuals, groups, or companies—without regard for long-term environmental damage has led to widespread resource depletion and pollution. Many rivers have become «dead rivers» due to the continuous discharge of untreated industrial wastewater from factories. Agricultural areas, such as sugar cane and strawberry fields, have collapsed along riverbanks due to intensive sand extraction by dredgers and suction vessels, which destabilize riverbeds. As Nguyen (2016) points out, «the death of rivers not only leads to the destruction of agricultural land, but also damages aquaculture, fishing, and marine exploitation areas, ultimately imposing serious consequences on humanity.»

Numerous severe natural disasters around the world further illustrate the vulnerability of human societies to environmental instability. The 2008 Sichuan earthquake in China (magnitude 8.0) caused approximately 87,000 deaths and left 10 million people homeless. The 2015

Nepal earthquake (magnitude 7.9) caused more than 4,000 deaths and triggered a deadly avalanche on Everest, killing 17 climbers and leaving more than 60 injured. In 2018, a magnitude 7.5 earthquake in Indonesia claimed more than 4,300 lives. The 2011 earthquake and subsequent tsunami in Japan (magnitude 9.0) caused nearly 20,000 deaths, approximately 2,400 injuries, exposed 190 people to radiation, and damaged more than 100,000 homes. More recently, earthquakes in Turkey and Syria on February 6, 2023, caused around 50,000 deaths and left millions of people facing harsh winter conditions.

These catastrophic events reflect the warnings articulated by Engels more than a century ago: «These events have reminded us every hour, every minute, that we cannot dominate nature as an invader dominates another nation, as someone who lives outside nature» (Marx & Engels, 1995, vol. 20). Similarly, Nguyen (2016) points out that nature's destructive responses have «turned once-prosperous nations into wastelands or even wiped out entire civilizations,» highlighting the need for ongoing reflection on humanity's relationship with the environment.

The negative externalities of the market economy have also contributed to prioritizing economic interests over environmental considerations. In many cases, monetary value has been absolutized, leading people to believe that material accumulation equates to security, happiness, and social superiority. These perspectives often encourage non-compliance with environmental laws and ecological limits. Engels highlights the essential concept of adaptation, stating that «no living being, including human beings, can exist outside the biosphere» (Marx & Engels, 1995, vol. 1). Human existence depends fundamentally on nature, which provides the material basis for survival and development.

Marx clearly expressed this relationship in the *Economic and Philosophical Manuscripts of 1844*, stating that:

Nature, specifically nature itself, not as the body of man, is the inorganic body of man. Man lives from nature. This means that nature is his body, with which he must remain in constant exchange in order to live. To say that man's physical and mental life is linked to nature is simply to say that nature is linked to itself, since man is part of nature (Marx & Engels, 1995, vol. 42).

This perspective underscores the intrinsic connection between humans and their natural environment, highlighting the need to maintain ecological balance for sustainable human development.

Policies, management, and institutional aspects

Awareness and compliance with regulations on natural resource management, environmental protection, and climate change adaptation remain limited. Businesses and citizens have not yet fully understood the importance, significance, and responsibility of proactively responding to climate change and protecting the environment, resulting in serious environmental incidents continuing to occur, while preventive measures and penalties for violations remain insufficiently strict and ineffective.

Several aspects of state management related to natural resources, environmental governance, and climate change adaptation remain inadequate, and limitations persist in the quality of planning, assessment, and valuation of natural resources. Although there is a growing trend toward reducing short-term, profit-driven exploitation of resources, progress remains slow. The transition to more efficient energy use and the expansion of renewable and clean energy sources is also progressing at a slow pace.

Environmental quality in several regions continues to deteriorate, while climate change adaptation strategies remain largely passive and inadequate. Natural ecosystems and biodiversity are further deteriorating. The environmental industry—including recycling and waste treatment—has developed slowly and remains below regional and global standards. Furthermore, the importation of obsolete technologies, machinery, and equipment that do not meet environmental requirements has not been effectively addressed. As noted by the Communist Party of Vietnam (2021), these persistent shortcomings ultimately impose serious long-term consequences and burdens on both current and future generations.

Environmental philosophy and the role of environmental education

In Vietnam's alarming environmental situation, the causes can be largely attributed to society's inhumane behaviors and uncivilized attitudes toward the environment. This was already warned by Engels more than a century ago, who pointed out that if humans interfere with nature and disrupt the ecological balance, they will inevitably face risks that threaten their own existence, and emphasized that «our mastery of nature is based on our ability to understand the laws of nature and use them accurately» (Marx & Engels, 1995, vol. 20). Unfortunately, Engels' warnings have not been adequately heeded by nations over the years, and humanity now faces the consequences, often at great cost and with deep regret.

An excessive emphasis on economic growth—often pursued without regard for its environmental consequences—coupled with wasteful and in-



discriminate exploitation of natural resources, has contributed to severe environmental degradation in Vietnam, including saltwater intrusion, pollution, desertification, land subsidence, and landslides. The current situation serves as a lesson that requires careful consideration and reflection.

Therefore, a pressing question arises: how can ecological awareness, environmental education, and sustainable behaviors be effectively promoted to balance socioeconomic development with environmental protection, ensuring prosperity and human well-being in the context of climate change and ecosystem degradation?

Environmental education is emerging as a crucial mechanism for fostering ecological awareness and responsible behavior, encouraging individuals and communities to recognize their interdependence with nature, develop sustainable values, and promote collective responsibility in environmental management. Strengthening environmental education at all levels, together with effective policies and governance, can guide Vietnam—and the global community—toward sustainable development and ecological balance.



Solutions for sustainable development

Human beings are both the goal and the driving force of a society that develops in a sustainable way. Today, to ensure that people actively participate in society, it is crucial and urgent to raise environmental awareness. To balance socioeconomic development with environmental protection, while ensuring human prosperity and well-being in the context of climate change and ecosystem degradation, the following solutions can be applied:

First, *strengthen environmental education and ecological awareness*. Environmental education should be integrated into curricula from preschool to higher education, focusing on topics such as climate change, biodiversity conservation, the circular economy, and sustainable development. Community campaigns, workshops, online courses, and hands-on activities should be organized to improve environmental knowledge and awareness across all age groups. The system of policies and laws on resource management, environmental protection, and climate change adaptation should be further improved and effectively implemented.

Although the legal system—including the Environmental Protection Law—is relatively comprehensive, there are still gaps and laxity in the enforcement of penalties for environmental violations. As a result, companies and individuals who intentionally violate environmental laws can act destructively without being deterred in time by the legal system.

At this point, the use of the law as a coercive tool is effective in preventing actions that violate the legitimate interests of others and of the nation. Therefore, in the process of modern industrialization, enhancing the role of environmental laws for the population becomes an effective coercive tool to educate people about good qualities towards the environment, especially legal awareness and responsibility in environmental protection, «cultivating the good in each person to flourish like spring flowers and gradually eliminating the bad» (Ho Chi Minh, 2000). «Living and working in accordance with the Constitution and laws,» building a civilized and environmentally friendly way of life for the sustainable development of Vietnam.

Secondly, *promoting sustainable behaviors in everyday life and production*. Businesses and communities should be encouraged to adopt energy-saving solutions, reduce greenhouse gas emissions, manage waste responsibly, and use natural resources efficiently. Incentive mechanisms, such as support policies, financial tools, and eco-certification systems, should be developed to motivate individuals and businesses to engage in environmentally friendly practices.

This involves improving communication, education, awareness, and the effectiveness of law enforcement in the areas of resource management, environmental protection, and climate change adaptation. Protect and sustainably develop natural ecosystems, conserve nature and biodiversity, and protect wetland ecosystems. Properly account for the value of natural resources, capital, land, water, forests, minerals, biodiversity, natural landscapes, pollution, and environmental degradation in the national accounting system. Institutionalize market principles in the cost of management, repair of consequences, rehabilitation and restoration of the environment, and fulfillment of responsibilities to reinvest in environmental protection. Develop a roadmap, mechanisms, policies, and laws to establish and implement a circular economy model. Effectively implement the objectives of the United Nations 2030 Agenda (Communist Party of Vietnam, 2021).

Change mindsets and awareness towards green growth, proactive and effective adaptation to climate change, correct biased and incomplete perceptions about the importance and relevance of proactive adaptation and resilience to climate change, and balance sustainable development with environmental protection, in line with the guidance of the Communist Party of Vietnam. The country needs appropriate and flexible policies to cope with and adapt to the negative effects of climate change, reduce greenhouse gas emissions, environmental pollution, and the depletion of



natural resources. Clear regulations are needed to adapt to climate change, while promoting sustainable economic development and creating employment opportunities for the population. Green development and the green economy mean green production and consumption, i.e., environmentally friendly production and consumption accompanied by high efficiency and effectiveness, low resource consumption, and no damage to the ecological environment, creating a new impetus for the development of a knowledge-based economy. Therefore, green development is based on modern technology, digitalization, and a highly educated population.

Third, *develop integrated policies that link education, the environment, the economy, and social development* to establish a solid foundation for sustainable behavior. Monitoring, evaluation, and feedback mechanisms should be established to assess the effectiveness of environmental education programs and sustainable behavior initiatives, allowing for timely policy adjustments.

This involves actively and positively participating in international cooperation to share information, coordinate research, manage, exploit, and use natural resources efficiently and sustainably, ensuring ecological security, environmental security, water security, food security, and adaptation to climate change, while minimizing the adverse effects of globalization and international integration. Fulfill international commitments, contribute to the international community in addressing climate change and protecting global ecosystems (Communist Party of Vietnam, 2021).

Fourth, *apply digital technologies and promote digital transformation*. Digital platforms, big data, and artificial intelligence should be used to monitor environmental impacts, disseminate environmental education, and encourage eco-friendly behavior. Interactive tools, mobile applications, and gamified content should be developed to actively engage the public, especially young people, in sustainable activities.

Digitization to prevent and reduce plastic waste, control environmental pollution, and restore marine ecosystems. Proactively prevent and mitigate the impacts of sea level rise, flooding, erosion, and saltwater intrusion in coastal areas, especially in the Mekong Delta, the Red River Delta, and central coastal areas, as well as flash floods and landslides in central upland and mountainous areas. Harmonize economic development with environmental protection. Proactively monitor and respond effectively to climate change; develop a green economy with low waste emissions, reduce greenhouse gas emissions, and low carbon emissions. Improve information sharing, transparency, and regional linkages in responding to climate change, resource management, and environmental



protection. Research and develop methods and procedures to predict and warn of natural disasters such as earthquakes and tsunamis, monitor the marine environment, climate change, and sea level rise to contribute to sustainable socioeconomic development, disaster prevention, and climate change adaptation (Communist Party of Vietnam, 2021).

Improve protection, inspection, control, and enforcement efforts in the areas of resource management, the environment, and climate change adaptation. Improve control of resource exploitation activities, industries, and businesses that are heavily dependent on resources, as well as sources of greenhouse gas emissions. Combat, prevent, and rigorously address all violations of resource and environmental laws, tackling pollution, environmental degradation, resource depletion, and biodiversity loss (Communist Party of Vietnam, 2021).

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Fifth, *build sustainable community models, smart and happy villages, and green economic systems* aimed at achieving carbon neutrality. Support should be given to community initiatives in organic farming, renewable energy, waste management, and biodiversity conservation. The participation of social organizations, businesses, and individuals in pilot projects that can later be scaled up nationwide should be encouraged.

Sustainable development means moving from a purely agricultural mindset to a «smart and sustainable agricultural economic mindset,» shifting from quantity-based to quality-based development, promoting clean agriculture linked to value chains and brand building. One of the critical components for realizing this vision is a team of experts and scientists from institutes, universities, and business communities to lead the transformation of farmers.

It is important to respect the laws of nature, prioritize natural adaptation models, avoid aggressive intervention in nature, and promote sustainable development. The challenges ahead are not just predictions, but are already present. To successfully adapt to nature, we must preserve the land, water, and, most importantly, people. The mindset must shift from coexisting with floods to proactively coexisting with floods, salinity, and drought, conserving freshwater use, ensuring organic connectivity within regions, and linking them to key economic regions and the world. Vietnam needs to:

Proactively and effectively adapt to climate change, prevent, control, and reduce natural disasters and epidemics; manage, exploit, and use resources rationally, efficiently, and sustainably; prioritize environmental protection and public health as top priorities; Decisively eliminate projects that cause environmental pollution, ensure environmental quality, and

protect biodiversity and ecosystems; build a green economy, a circular economy, and an environmentally friendly economy (Communist Party of Vietnam, 2021).

It is necessary to rethink the idea that climate change has negative effects, as it also offers opportunities for sustainable economic development in Vietnam through the exploitation of natural resources, the use of local labor, and cheap labor. Climate change provides the country with an opportunity to change its mindset on economic development, particularly by implementing a green and low-carbon development model, reducing greenhouse gas emissions, and achieving rapid economic growth based on the sustainable and efficient exploitation of resources. This includes fulfilling environmental protection responsibilities, mitigating the economic effects of environmental pollution, and responding to climate change in a timely and effective way. It also involves choosing industries and restructuring agriculture, selecting crops and livestock that are resistant to drought, flooding, and saltwater intrusion caused by climate change and environmental pollution. The choice of industries and productive sectors should minimize the impacts of climate change, prioritize the prevention and mitigation of negative impacts, and minimize the damage caused by greenhouse gas emissions, sea level rise, etc. Priority should be given to sustainable economic development standards and green growth as primary objectives, without compromising the country's sustainable development goals.

Conclusion

This study has clarified the fundamental role of environmental education in improving ecological awareness, promoting sustainable development, fostering prosperity, and improving human well-being. The results demonstrate that integrating environmental education into different levels of education, supported by legal frameworks, management mechanisms, and the transition to a circular economy, equips students and communities with the knowledge, skills, and attitudes necessary to protect the environment, respond to climate change, and engage in sustainable practices.

Current environmental challenges, such as climate change, resource depletion, biodiversity loss, and pollution, require flexible, adaptable, and context-specific strategies that align sustainable development with socioeconomic growth. The research hypothesis—that environmental education can improve awareness, behaviors, and policies toward sustain-

nable development—has been supported by empirical evidence, international literature, and real-life cases in Vietnam. In particular, the study confirms that environmental education shapes not only individual attitudes but also collective actions, ethical responsibility, and community participation in ecological management.

Based on these results, it can be concluded that environmental education is not only a tool for raising awareness, but also a transformative mechanism for shaping sustainable behaviors, influencing policies, and promoting long-term environmental management. This conclusion directly addresses the study's objectives and research question, demonstrating that education functions as a strategic pathway to sustainability and is essential for harmonizing economic development with ecological preservation. Furthermore, the study highlights that incorporating environmental education into formal curricula, professional training, and community programs can improve resilience, adaptive capacity, and social commitment to sustainable development goals.

Furthermore, the incorporation of philosophical foundations such as deep ecology (Naess, 1973), the ethics of care (Gilligan, 1982; Noddings, 1984), environmental pragmatism (Dewey, 1938), and ecosocialist thought (Gorz, 1980; Löwy, 2015) further reinforces this conclusion. These theoretical perspectives demonstrate that environmental education goes beyond cognitive processes and includes ethical, emotional, relational, and sociopolitical dimensions that are essential for cultivating ecological awareness. The philosophical principles added above affirm that environmental education shapes not only knowledge but also values, moral responsibility, and critical reasoning, which are key elements in guiding societies toward an equitable and sustainable future.

Therefore, the conclusion that environmental education should be understood as a comprehensive and multidimensional strategy based on ethical, philosophical, and practical foundations capable of transforming both individuals and societies is reinforced. The integration of these philosophical theories confirms that sustainability requires not only political interventions or technical solutions, but also a profound cultural and ethical reorientation towards nature, collective well-being, and intergenerational responsibility.

Future research should explore other dimensions, including:

- The integration of environmental education into national development agendas and sectoral policies.



- The assessment of its long-term effects on the behavior of various demographic groups.
- The effectiveness of digital, experiential, and community-based learning approaches.
- Mechanisms to strengthen synergies between education, governance, and local green initiatives.

Expanding research in these areas will provide deeper insights into how to optimize environmental education as a strategic tool for achieving sustainable development, climate resilience, and human well-being in Vietnam and other developing nations.

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2024 Addressing issues about building the consciousness of environment protection for contemporary Vietnamese students. *Perspektivy Nauki i Obrazovania-Perspectives of Science and Education*, 69(3), 719-737. <https://doi.org/10.32744/pse.2024.3.44>

TUYEN GIAO, Vietnam

s. f. *Some environmental issues in Vietnam today*. <https://bit.ly/4iVQeMv>

WALS, Arjen

2019 Learning-based transformations towards sustainability: A relational approach based on Humberto Maturana and Paulo Freire. *Environmental Education Research*, 25(11), 1605-1619. <https://doi.org/10.1080/13504622.2019.1659740>

Authorship Statement - CRediT Taxonomy	
Author(s)	Contributions
Luong Thi Hoai Thanh	Research: conducting research and explorations, specifically conducting experiments or collecting data/evidence.
Nguyen Viet Thanh	Research: conducting a process of research and exploration, specifically conducting experiments or collecting data/evidence.

Declaration on the use of artificial intelligence
The authors Luong Thi Hoai Thanh and Nguyen Viet Thanh of the article entitled: «Environmental education for strengthening ecological awareness, sustainable development, prosperity, and human well-being,» DECLARE that the preparation of the document received 0% support from Artificial Intelligence (AI).

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Publication guidelines in «Sophia»



ISSN: 1390-3861 / e-ISSN: 1390-8626

1. General Information

«Sophia» is a scientific publication of the *Salesian Polytechnic University of Ecuador*, published since January 2006 in an uninterrupted manner, with a fixed biannual periodicity, specialized in Philosophy of Education and its interdisciplinary lines such as Epistemology, Deontology, Aesthetics, Critical Studies, Hermeneutics, Axiology, Ontology, Philosophical Anthropology, Sociology, Philosophical Analytics, among others, all linked to the field of Education.

It is scientific journal, which uses the peer-review system, under double-blind review methodology, according to the publication standards of the American Psychological Association (APA). Compliance with this system allows authors to guarantee an objective, impartial and transparent review process, which facilitates the publication of their inclusion in reference databases, repositories and international indexing.

«Sophia» is indexed in **(SCOPUS)** Emerging Sources Citation Index **(ESCI)** from Web of Science; in Scientific Electronic Library Online **(SciELO)**; in the Scientific Information System **(REDALYC)**; in the directory and selective catalog of the Regional Online Information System for Scientific Journals of Latin America, the Caribbean, Spain and Portugal **(LATINDEX)**, in the Matrix of Information for the Analysis of Journals **(MIAR)**, in Integrated Classification of Scientific Journals **(C.I.R.C)**, in the Academic Resource Index **(Research Bible)**, in the Ibero-American Network of Innovation and Scientific Knowledge **(REDIB)**, in the Portal for the dissemination of scientific production **(Dialnet)**; in Latin American Bibliography in Journals of Scientific and Social Research **(BIBLAT)**; in the Directory of Open Access Journals **DOAJ** and in repositories, libraries and specialized catalogs of Latin America.

The journal is published in a double version: printed (ISSN: 1390-3861) and digital (e-ISSN: 1390-8626), Spanish and English, each work being identified with a DOI (Digital Object Identifier System).

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2. *Scope and policy*

2.1. *Theme*

Original contributions in Philosophy of Education, as well as related areas: Epistemology, Deontology, Aesthetics, Critical Studies, Hermeneutics, Axiology, Ontology, Philosophical Anthropology, Sociology, Philosophical Analytics,... and all interdisciplinary related disciplines with a philosophical reflection on education

2.2. *Contributions*

«Sophia» publishes critical studies, reports and proposals, as well as selected state-of-the-art literature reviews related to Philosophy of education. Accepting also results of empirical research on Education, written in Spanish and/or English.

The contributions can be:

- **Reviews:** 10,000 to 11,000 words of text, without including charts and references. Justified references would be specially valued. (around a minimum of 60 works)
- **Research:** 8,000 to 9,500 words of text, without including title, abstracts, descriptors, charts and references.
- **Reports, studies and proposals:** 8,000 to 9,500 words of text, without including title, abstracts, charts and references.

2.3. *Characteristics of the content*

All works presented for publication in «Sophia» must comply with the characteristics of scientific research:

- Be original, unpublished and relevant
- Address issues that respond to current problems and needs
- Contribute to the development of scientific knowledge in the field of Philosophy of Education and its related areas
- Use adequate, clear, precise and comprehensible language
- Not have been published in any medium or in the process of arbitration or publication.
- Not to be the result of thesis work, monographs, and/or degree projects
- Do not exceed 2% similarity with other documents.
- If applicable, explicitly and responsibly disclose the use of artificial intelligence tools, ensuring that their application was limited to technical support or writing assistance, without compromising the originality or intellectual authorship of the manuscript.



Depending on the relevance of the article, it will be considered as special contributions and will occasionally be published:

- Works that exceed the stated extent.
- Articles with more than three authors will be accepted when they address a topic of significant relevance to the scientific community, involve complex categorical analysis within a specific field of knowledge, are produced by researchers from different countries and continents, and receive an outstanding evaluation from international peer reviewers.
- Works that do not correspond to the subject of the reflection foreseen for the respective issue.

2.4. Periodicity

«Sophia» has a biannual periodicity (20 articles per year), published in January and July and counts by number with two sections of five articles each, the first referring to a **Monographic** topic prepared in advance and with thematic editors and the second, a section of **Miscellaneous**, composed of varied contributions within the theme of the publication.

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2.5 Transparency, equity, and recognition of researchers' contributions. To promote transparency, equity, and the proper acknowledgment of each contributor's role in scientific production, *Sophia* journal adopts the Contributor Roles Taxonomy (CRediT).

2.6 Research integrity. To ensure the integrity of the research process and intellectual honesty, *Sophia* requires the disclosure of any use of Artificial Intelligence (AI) with the purpose of identifying the extent of automated intervention in the creation, writing, analysis, or review of content. This disclosure is an imperative for clearly delineating human responsibility in the generation of content to be published by *Sophia*, and for fostering a culture of openness toward the appropriate use of technological tools in scientific production. The declared use of AI is a prerequisite for the ethical and rigorous advancement of knowledge.

2.7 Retraction. In the event that the author of a manuscript submitted to the *Sophia: Collection of Philosophy of Education* journal, in the required **Declaration of AI Use**, has explicitly stated that no Artificial Intelligence (AI) tools were used, and despite the editorial checks carried out throughout the various stages of the review process up to publication, aspects related to simi-

larity, overlap, false or inappropriate information regarding the use of AI were not detected in time—if, after publication, improper use of AI is confirmed—the journal reserves the right to sanction the author(s) through formal **retraction** of the article. This implies the removal of the document from the journal, the withdrawal of the author(s)' claim as stated in the Declaration of AI Use, and the public acknowledgment of the error. The author(s) must formally admit the mistake and revoke their previous declaration.

2.8 Fees. *Sophia* does not charge for publication. There are no fees or payments required from authors or readers. Access to all content is completely free of charge. The processing of manuscripts and/or publication materials is fully sponsored by the Salesian Polytechnic University of Ecuador. Authors are entirely exempt from any payment.

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3. Presentation, Structure and Submission of the Manuscripts

Texts will be presented in Arial 12 font, single line spacing, complete justification and no tabs or blank spaces between paragraphs. Only large blocks (title, authors, summaries, keywords, credits and headings) will be separated with a blank space. The page should be 2 centimeters in all its margins.

Papers must be submitted in a Microsoft Word document (.doc or .docx), requiring that the file be anonymized in File Properties, so that the author/s identification does not appear.

Manuscripts must be submitted only and exclusively through the OJS (Open Journal System), in which all authors must previously register. Originals sent via email or other interfaces are not accepted.

3.1. Structure of the manuscript

For those works that are empirical investigations, the manuscripts will follow the IMRDC structure, being optional the Notes and Supports. Those papers that, on the contrary, deal with reports, studies, proposals and reviews may be more flexible in their epigraphs, particularly in material and methods, analysis, results, discussion and conclusions. In all typologies of works, references are mandatory.

A. EMPIRICAL RESEARCH

Its purpose is to contribute to the progress of knowledge through original information, following the IMRDC structure: Introduction (objectives, previous literature). Materials and methods, Analysis and Results, Discussion,

integration and conclusions. Following the criteria set by UNESCO, it is these types of scientific texts are also called as: “original memories”

The recommended structure, especially in works that include empirical research, is the following:

1) Title (Spanish) /Title (English): Concise but informative, in Spanish on the first line and in English on the second. A maximum of 85 characters with spaces are accepted. The title is not only the responsibility of the authors, changes being able to be proposed by the Editorial Board.

2) Identification data: Of each of the authors, organized by priority. A maximum of 3 authors will be accepted per original, although there may be exceptions justified by the topic, its complexity and extent. When the subject matter is of significant relevance to the scientific community, involves complex categorical analysis within a specific field of knowledge, is developed by researchers from different countries and continents, and receives an outstanding evaluation from international peer reviewers. Next to the names must follow the professional category, work center, email of each author and complete ORCID number. Aspects that must be included in the Cover Letter, must also be uploaded to the OJS system of the journal, in the Metadata section and /or in a word document attached to the file containing the work proposed for the evaluation.

3) Abstract (Spanish) / Abstract (English): It will have a minimum length of 210 and a maximum of 220 words in Spanish; and 200 and maximum 210 words in English. The abstract will describe concisely and in this order: 1) Justification of the topic; 2) Objectives; 3) Methodology; 4) Main results; 5) Main conclusions. It must be impersonally written “This paper analyzes...”. In the case of the abstract, the use of automatic translators will not be accepted due to their poor quality.

4) Keywords (Spanish) / Keywords (English): A maximum of 6 keywords must be presented for each language version directly related to the subject of the work. The use of the key words set out in UNESCO’s Thesaurus and of the journal itself, located in the following link: https://sophia.ups.edu.ec/tesauro_sophia.php, will be positively valued.

5) Introduction and state of the issue: It should include the problem statement, context of the problem, justification, rationale and purpose of the study, using bibliographical citations, as well as the most significant and current literature on the topic at national and international level.

6) Material and methods: It must be written so that the reader can easily understand the development of the research. If applicable, it will describe the methodology, the sample and the form of sampling, as well as the type of statistical analysis used. If it is an original methodology, it is necessary to explain the reasons that led to its use and to describe its possible limitations.

7) Analysis and results: It will try to highlight the most important observations, describing them, without making value judgments, the material and methods used. They will appear in a logical sequence in the text and the essential charts and figures avoiding the duplication of data.

8) Discussion and conclusions: Summarize the most important findings, relating the observations themselves with relevant studies, indicating contributions and limitations, without adding data already mentioned in other sections. Also, the discussion and conclusions section should include the deductions and lines for future research.

9) Supports and acknowledgments (optional): The Council Science Editors recommends the author (s) to specify the source of funding for the research. Priority will be given to projects supported by national and international competitive projects. In any case, for the scientific evaluation of the manuscript, it should be only anonymized with XXXX for its initial evaluation, in order not to identify authors and research teams, which should be explained in the Cover Letter and later in the final manuscript.

10) The notes (optional) will go, only if necessary, at the end of the article (before the references). They must be manually annotated, since the system of footnotes or the end of Word is not recognized by the layout systems. The numbers of notes are placed in superscript, both in the text and in the final note. The numbers of notes are placed in superscript, both in the text and in the final note. No notes are allowed that collect simple bibliographic citations (without comments), as these should go in the references.

11) References: Bibliographical citations should be reviewed in the form of references to the text. Under no circumstances should references not mentioned in the text be included. Their number should be sufficient to contextualize the theoretical framework with current and important criteria. They will be presented alphabetically by the first last name of the author.

B. REVIEWS

Literature reviews are based on the analysis of major publications on a given topic; Its objective is to define the current state of the problem and to evaluate the investigations carried out. Its structure responds to the phases of the theme/ problem, contributions of researchers or teams, changes in theory or main theoretical currents; unsolved problems; current and future trends (Giordanino, 2011). According to UNESCO, this type of work is also known as “recapitulative studies”

1) Title (Spanish) /Title (English): Concise but informative, in Spanish on the first line and in English on the second. A maximum of 85 characters with spaces are accepted. The title is not only the responsibility of the authors, changes being able to be proposed by the Editorial Board.

2) Identification data: Of each of the authors, organized by priority. A maximum of 3 authors will be accepted per original, although there may be exceptions justified by the topic, its complexity and extent. When the subject matter is of significant relevance to the scientific community, involves complex categorical analysis within a specific field of knowledge, is developed by research-



chers from different countries and continents, and receives an outstanding evaluation from international peer reviewers. Each name must next to the names must follow the professional category, work center, email of each author and complete ORCID number. Aspects that must be included in the Cover Letter, must also be uploaded to the OJS system of the journal, in the Metadata section and /or in a word document attached to the file containing the work proposed for the evaluation.

3) Abstract (Spanish) / Abstract (English): It will have a minimum length of 210 and a maximum of 220 words in Spanish; and 200 and maximum 210 words in English. The abstract will describe concisely and in this order: 1) Justification of the topic; 2) Objectives; 3) Methodology; 4) Main results; 5) Main conclusions. It must be impersonally written "This paper analyzes..." In the case of the abstract, the use of automatic translators will not be accepted due to their poor quality.

4) Keywords (Spanish) / Keywords (English): A maximum of 6 keywords must be presented for each language version directly related to the subject of the work. The use of the key words set out in UNESCO's Thesaurus and of the Journal itself will be positively valued.

5) Introduction: It should include a brief presentation of the topic, the formulation of the purpose or objective of the study, the context of the problem and the formulation of the problem that is proposed, the presentation of the idea to be defended, the justification explaining the importance, the relevance of the study; the methodological framework used, and finally, a brief description of the structure of the document. In the justification it is necessary to use bibliographical citations as well as the most significant and current literature on the subject at national and international level.

6) Body or development of the document: It implies putting into practice throughout the text, a critical attitude that should tend towards the interpellation, in order to attract the attention of the topic and the problem treated. The writer must generate in the reader the capacity to identify the dialogical intention of the proposal and to promote an open discussion.

7) Conclusions: Objectively state the results and findings. Offer a vision of the implications of the work, the limitations, the tentative response to the problem, the relations with the objective of the research and the possible lines of continuity (to fulfill this objective it is suggested not to include all the results obtained in the research). The conclusions should be duly justified according to the research carried out. The conclusions may be associated with the recommendations, evaluations, applications, suggestions, new relations and accepted or rejected hypotheses.

8) Bibliography: It is the set of works used in the structuring of the scientific text. It should include only the reference of the works used in the research. Bibliographical references should be ordered alphabetically and conform to the international APA standards, in their sixth edition.

3.2. Guidelines for references

PERIODIC PUBLICATIONS

Journal article (author): Valdés-Pérez, D. (2016). Valdés-Pérez, D. (2016). Incidencia de las técnicas de gestión en la mejora de decisiones administrativas [Impact of Management Techniques on the Improvement of Administrative Decisions]. *Retos*, 12(6), 199-2013. <https://doi.org/10.17163/ret.n12.2016.05>

Journal Article (Up to six authors): Ospina, M.C., Alvarado, S.V., Fefferman, M., & Llanos, D. (2016). Introducción del dossier temático “Infancias y juventudes: violencias, conflictos, memorias y procesos de construcción de paz” [Introduction of the thematic dossier “Infancy and Youth: Violence, Conflicts, Memories and Peace Construction Processes”]. *Universitas*, 25(14), 91-95. <https://doi.org/10.17163/uni.n25.%25x>

Journal article (more than six authors): Smith, S.W., Smith, S.L. Pieper, K.M., Yoo, J.H., Ferrys, A.L., Downs, E.,... Bowden, B. (2006). Altruism on American Television: Examining the Amount of, and Context Surrounding. *Acts of Helping and Sharing. Journal of Communication*, 56(4), 707-727. <https://doi.org/10.1111/j.1460-2466.2006.00316.x>

Journal article (without DOI): Rodríguez, A. (2007). Desde la promoción de salud mental hacia la promoción de salud: La concepción de lo comunitario en la implementación de proyectos sociales. *Alteridad*, 2(1), 28-40. (<https://goo.gl/zDb3Me>) (2017-01-29).

BOOKS AND BOOK CHAPTERS

Full books: Cuéllar, J.C., & Moncada-Paredes, M.C. (2014). *El peso de la deuda externa ecuatoriana*. Quito: Abya-Yala.

Chapter of book: Zambrano-Quiñones, D. (2015). El ecoturismo comunitario en Manglaralto y Colonche. En V.H. Torres (Ed.), *Alternativas de Vida: Trece experiencias de desarrollo endógeno en Ecuador* (pp. 175-198). Quito: Abya-Yala.

DIGITAL MEDIA

Pérez-Rodríguez, M.A., Ramírez, A., & García-Ruiz, R. (2015). La competencia mediática en educación infantil. *Análisis del nivel de desarrollo en España. Universitas Psychologica*, 14(2), 619-630. <http://dx.doi.org/10.11144/Javeriana.upsy14-2.cmei>

It is prescriptive that all quotations that have DOI (Digital Object Identifier System) are reflected in the References (can be obtained at <http://goo.gl/gfruh1>). All journals and books that do not have DOI should appear with their respective link (in their online version, if they have it, shortened by Bitly: <https://bitly.com/>) and date of consultation in the indicated format.

Journal articles should be presented in English, except for those in Spanish and English, in which case it will be displayed in both languages using

brackets. All web addresses submitted must be shortened in the manuscript, except for the DOI that must be in the indicated format (<https://doi.org/XXX>).

3.3. *Epigraphs, Figures and Charts*

The epigraphs of the body of the article will be numbered in Arabic. They should go without a full box of capital letters, neither underlined nor bold. The numbering must be a maximum of three levels: 1. / 1.1. / 1.1.1. A carriage return will be established at the end of each numbered epigraph.

The charts must be included in the text in Word format according to order of appearance, numbered in Arabic and subtitled with the description of the content.

The graphics or figures will be adjusted to the minimum number required and will be presented incorporated in the text, according to their order of appearance, numbered in Arabic and subtitled with the abbreviated description. Their quality should not be less than 300 dpi, and it may be necessary to have the graph in TIFF, PNG or JPEG format.

4. *Submission Process*

The receipt of articles is permanent, however, considering that the publication of the Sophia Journal is bi-annual, the manuscripts must be sent at least one period before the date stipulated in the corresponding Call.

The manuscripts must be sent through the OJS (Open Journal System) system of the journal, for which it is necessary that the author previously registers in the respective space (enter in the following link: <http://sophia.ups.edu.ec/index.php/sophia/user/register>, complete the form and follow each of the suggested steps).

The five documents that must be submitted are:

1. **Letter of introduction.** This document includes a declaration stating that the submitted manuscript is an original contribution, has not been submitted to or is under review by any other journal. It also includes the acceptance of the signing authors, allowing, if applicable, the editorial team of Sophia to make changes to the content, formal aspects, and style of the document following the journal's requirements after the manuscript review process. Additionally, the Letter of introduction or Presentation contains a Rights Transfer section (partial transfer of rights to the publisher) and a Conflict of Interest Declaration, in accordance with editorial guidelines. This document must be signed and submitted through the OJS system in the "Supplementary Files" section.
2. **Cover Letter.** This letter should include the following information

Title. In Spanish in the first line, in letter Arial 14, with bold and centered, with a maximum of 85 characters with space. In English in the second line, in letter Arial 14, in italics and bold.

Full names and surnames of the authors. Organized in order of priority, a maximum of 3 authors are accepted per original, although there may be exceptions justified by the topic, its complexity and extent. When the subject matter is of significant relevance to the scientific community, involves complex categorical analysis within a specific field of knowledge, is developed by researchers from different countries and continents, and receives an outstanding evaluation from international peer reviewers. Each name must include the name of the institution in which he/she works as well as the city, country, email and ORCID number.

Abstract (Spanish) It will have a minimum length of 210 and a maximum of 220 words. It must include 1) Justification of the topic; 2) Objectives; 3) Methodology; 4) Main results; 5) Main conclusions. It must be impersonally written "The present paper analyzes..."

Abstract. Summary with all its components, translated into English and in cursive. Do not use automatic translation systems.

Keywords (Spanish): 6 standardized terms preferably of a single word and of the UNESCO and the Journal's Thesaurus separated by commas (,).

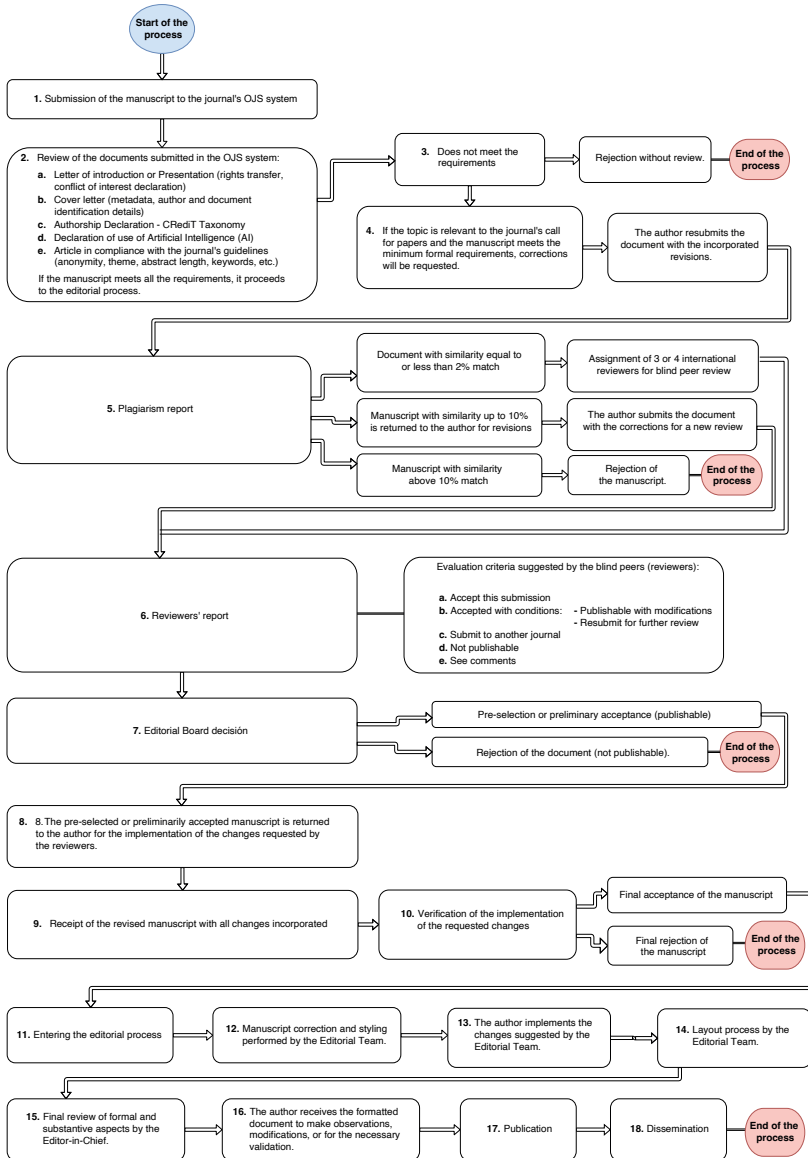
Keywords. The 6 terms above translated into English and separated by comma (,). Do not use automatic translation systems.

3. **Authorship Declaration (CRediT Taxonomy).** Applicable for articles written by multiple authors; this document details the contribution of each author to the manuscript submitted to Sophia, in accordance with the 14 aspects outlined by the CRediT Taxonomy. This document must be signed and submitted through the OJS system in the "Supplementary Files" section. It is necessary to use the format required by the journal.
4. **Artificial Intelligence (AI) Use Declaration.** This is the formal declaration made by the author(s) regarding the level of artificial intelligence (AI) used in the preparation of the manuscript, whether in parts or components of the document. It explains in detail, clearly, and precisely how this tool was utilized in the process and/or in the presentation of the research results. The document must be signed by the responsible author(s) and submitted through the OJS system of the journal.
5. **Manuscript** totally anonymized, according to the guidelines referred in precedence.

All authors must register with their credits on the OJS platform, although only one of them will be responsible for correspondence. No author can submit or have in review two manuscripts simultaneously, estimating an absence of four consecutive numbers (2 years).



5. Article evaluation process



6. Publication interval

The font size and style as stated in section 4 (Submission Process). The interval between receipt and publication of an article is 7 months (210 days).

Normas de Publicación en «Sophia»



ISSN: 1390-3861 / e-ISSN: 1390-8626

1. Información general

«Sophia» es una publicación científica de la Universidad Politécnica Salesiana de Ecuador, editada desde junio de 2006 de forma ininterrumpida, con periodicidad fija semestral, especializada en Filosofía de la Educación y sus líneas interdisciplinarias como Epistemología, Deontología, Estética, Estudios Críticos, Hermenéutica, Axiología, Ontología, Antropología Filosófica, Sociología, Analítica Filosófica... vinculadas al ámbito de la educación.

Es una revista científica arbitrada, que utiliza el sistema de evaluación externa por expertos (*peer-review*), bajo metodología de pares ciegos (*double-blind review*), conforme a las normas de publicación de la American Psychological Association (APA). El cumplimiento de este sistema permite garantizar a los autores un proceso de revisión objetivo, imparcial y transparente, lo que facilita a la publicación su inclusión en bases de datos, repositorios e indexaciones internacionales de referencia.

«Sophia» se encuentra indexada en (SCOPUS) Emerging Sources Citation Index (ESCI) de Web of Science; en Scientific Electronic Library Online (SciELO); en el Sistema de Información Científica (REDALYC); en el directorio y catálogo selectivo del Sistema Regional de Información en Línea para Revistas Científicas de América Latina, el Caribe, España y Portugal (LATINDEX), en la Matriz de Información para el Análisis de Revistas (MIAR), en Clasificación Integrada de Revistas Científicas (C.I.R.C), en Academic Resource Index (Research Bible), en la Red Iberoamericana de Innovación y Conocimiento Científico (REDIB), en el Portal de difusión de la producción científica (Dialnet); en Bibliografía Latinoamericana en Revistas de Investigación Científica y Social (BIBLAT); en el Directorio de Revistas de Acceso Abierto DOAJ y en repositorios, bibliotecas y catálogos especializados de Iberoamérica.

La revista se edita en doble versión: impresa (ISSN: 1390-3861) y electrónica (e-ISSN: 1390-8626), en español y en inglés, siendo identificado además cada trabajo con un DOI (Digital Object Identifier System).

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2. Alcance y política

2.1. Temática

Contribuciones originales en materia de Filosofía de la Educación, así como áreas afines: Epistemología, Deontología, Estética, Estudios Críticos, Hermenéutica, Axiología, Ontología, Antropología Filosófica, Sociología, Analítica Filosófica,... y todas aquellas disciplinas conexas interdisciplinariamente con una reflexión filosófica sobre la educación.

2.2. Aportaciones

«Sophia» edita estudios críticos, informes, propuestas, así como selectas revisiones de la literatura (*state-of-the-art*) en relación con la Filosofía de la Educación, aceptando asimismo trabajos de investigación empírica, redactados en español y en inglés.

Las aportaciones en la revista pueden ser:

- **Revisiones:** 10.000 a 11.000 palabras de texto, sin incluir tablas y referencias. Se valorará especialmente las referencias justificadas, actuales y selectivas de alrededor de un mínimo de 60 obras.
- **Investigaciones:** 8.000 a 9.500 palabras de texto, sin incluir título, resúmenes, descriptores, tablas y referencias.
- **Informes, estudios y propuestas:** 8.000 a 9.500 palabras de texto, sin incluir título, resúmenes, tablas y referencias.

2.3. Características del contenido

Todos los trabajos presentados para la publicación en «Sophia» deberán cumplir con las características propias de una investigación científica:

- Ser originales, inéditos y relevantes.
- Abordar temáticas que respondan a problemáticas y necesidades actuales.
- Aportar para el desarrollo del conocimiento científico en el campo de la Filosofía de la Educación y sus áreas afines.
- Utilizar un lenguaje adecuado, claro, preciso y comprensible.
- No haber sido publicados en ningún medio ni estar en proceso de arbitraje o publicación.
- No ser resultado de trabajos de tesis, monografías y/o trabajos de titulación.
- No exceder el 2% de similitud con otros documentos.
- En caso de que corresponda, declarar de forma explícita y responsable el uso de herramientas de inteligencia artificial, asegurando que su aplicación se haya limitado a funciones de apoyo técnico



o redacción, sin afectar la originalidad ni la autoría intelectual del manuscrito.

Dependiendo de la relevancia y pertinencia del artículo, se considerarán como contribuciones especiales y ocasionalmente se publicarán:

- Trabajos que superen la extensión manifestada.
- Artículos con más de tres autores cuando se trate de un tema relevante para la comunidad científica, complejo categorialmente dentro de un determinado campo del saber, elaborado por investigadores provenientes de distintos países y continentes, y con evaluación sobresaliente por parte de los revisores internacionales.
- Trabajos que no se correspondan con el tema objeto de la reflexión prevista para el número respectivo.

2.4 Periodicidad

«Sophia» tiene periodicidad semestral (20 artículos por año), publicada en los meses de enero y julio; y por número cuenta con dos secciones de cinco artículos cada una, la primera referida al tema central de carácter **Monográfico** debidamente preparado y, la segunda, una sección **Miscelánea**, compuesta por aportaciones variadas dentro de la temática de la publicación.



2.5 Transparencia, equidad y reconocimiento del aporte de los investigadores. Para promover la transparencia, la equidad y el reconocimiento adecuado de las contribuciones realizadas por cada uno de los colaboradores en la producción científica, la revista Sophia utiliza la **Taxonomía de roles de los colaboradores (CRediT)**.

2.6 Integridad de la investigación. Para garantizar la integridad del proceso de investigación y la honestidad intelectual, Sophia declara el uso de Inteligencia Artificial (IA) con la finalidad de identificar el grado de intervención automatizada en la creación, en la redacción, en el análisis o en la revisión de contenidos. Esta declaratoria se convierte en un imperativo para delimitar la responsabilidad humana en la generación del contenido que será publicado por Sophia y para propiciar una cultura de apertura al uso de herramientas tecnológicas que median adecuadamente la producción científica. El uso declarado de la Inteligencia Artificial constituye un requisito para el avance ético y riguroso del conocimiento.

2.7 Retracción: En caso de que el autor de algún manuscrito ingresado en el **Proceso de Evaluación** en la *Revista Sophia*:



Colección de Filosofía de la Educación, en el documento **Declaración de uso de Inteligencia Artificial** exigido como requisito por la revista, haya manifestado expresamente el no uso de Inteligencia Artificial y que a pesar de las revisiones ejecutadas en las distintas fases del proceso editorial hasta su publicación, por cualquier motivo involuntario no se haya detectado oportunamente aspectos de similitud, coincidencia, falsa o inapropiada información relacionados con la aplicación de inteligencia artificial en el documento y que posteriormente a la publicación del mismo se verifique el uso indebido de Inteligencia Artificial, la revista se reserva el derecho de sancionar al autor o autores del artículo con la **retractación** respectiva, esto implica el retiro del documento por parte de la revista, la renuncia a la afirmación expuesta por el autor o autores en el documento **Declaración de uso de Inteligencia Artificial**. El autor o los autores deberán **admitir públicamente el error y revocar lo declarado previamente**.

- 2.8 Pagos:** Sophia no cobra por publicar. No hay ninguna cuota o pago por parte de los autores o lectores. El acceso a su contenido es totalmente gratuito. El procesamiento de los manuscritos y/o los materiales de publicación son patrocinados por la Universidad Politécnica Salesiana del Ecuador. Los autores están exentos de todo pago.

3. Presentación, estructura y envío de los manuscritos

Los trabajos se presentarán en tipo de letra Arial 12, interlineado simple, justificado completo y sin tabuladores ni espacios en blanco entre párrafos. Se separarán con un espacio en blanco los grandes bloques (título, autores, resúmenes, descriptores, créditos y epígrafes). La página debe tener 2 centímetros en todos sus márgenes.

Los trabajos deben presentarse en documento de Microsoft Word (.doc o .docx), siendo necesario que el archivo esté anonimizado en Propiedades de Archivo, de forma que no aparezca la identificación de autor/es.

Los manuscritos deben ser enviados única y exclusivamente a través del OJS (Open Journal System), en el cual todos los autores deben darse de alta previamente. No se aceptan originales enviados a través de correo electrónico u otra interfaz.

3.1. Estructura del manuscrito

Para aquellos trabajos que se traten de investigaciones de carácter empírico, los manuscritos seguirán la estructura IMRDC, siendo opcionales los epígrafes de Notas y Apoyos. Aquellos trabajos que por el contrario se traten de informes, estudios, propuestas y revisiones sistemáticas podrán ser más flexibles en sus epígrafes, especialmente en Material y métodos; Análisis y resultados; Discusión y conclusiones. En todas las tipologías de trabajos son obligatorias las Referencias.

A. INVESTIGACIONES EMPÍRICAS

Su objetivo es contribuir al progreso del conocimiento mediante información original, sigue la estructura IMRDC: Introducción (objetivos, literatura previa), Materiales y métodos; Análisis y Resultados; Discusión, integración y conclusiones. Siguiendo los criterios planteados por la Unesco, este tipo de textos científicos se llaman también como: “memorias originales”

La estructura recomendada, especialmente en trabajos que incluyen investigaciones empíricas, es la siguiente:

1) Título (español) / Title (inglés): Conciso pero informativo, en castellano en primera línea y en inglés en segunda. Se aceptan como máximo 85 caracteres con espacio. El título no solo es responsabilidad de los autores, pudiéndose proponer cambios por parte del Consejo Editorial.

2) Datos de Identificación: Nombres y apellidos completos de cada uno de los autores, organizados por orden de prelación. Se aceptarán como máximo 3 autores por original, aunque pudieren existir excepciones justificadas por el tema, su complejidad y extensión. Cuando se trate de un tema relevante para la comunidad científica, complejo categorialmente dentro de un determinado campo del saber, elaborado por investigadores provenientes de distintos países y continentes, y con evaluación sobresaliente por parte de los revisores internacionales. Junto a los nombres deberá incluirse, el nombre de la institución en la que trabaja así como la ciudad, el país, el correo electrónico y número completo de ORCID de cada autor aspectos que deberán constar de modo obligatorio en la Carta de Presentación, además deberán ser cargados en el sistema OJS de la revista, en la sección Metadatos y/o en un documento word adjunto al archivo que contiene el trabajo que se propone para la evaluación.

3) Resumen (español) / Abstract (inglés): Tendrá como extensión mínima de 210 y máxima de 220 palabras en español; y de 200 y máximo de 210 palabras en inglés. El resumen describirá de forma concisa y en este orden: 1) Justificación del tema; 2) Objetivos; 3) Metodología y muestra; 4) Principales resultados; 5) Principales conclusiones. Ha de estar escrito de manera impersonal “El presente trabajo analiza...”. En el caso del abstract no se admitirá el empleo de traductores automáticos por su pésima calidad.

4) Descriptores (español) / Keywords (inglés): Se deben exponer máximo 6 términos por cada versión idiomática relacionados directamente con



el tema del trabajo. Será valorado positivamente el uso de las palabras claves expuestas en el Thesaurus de la UNESCO y en el de la propia revista localizado en el siguiente enlace: https://sophia.ups.edu.ec/tesauro_sophia.php

5) Introducción y estado de la cuestión: Debe incluir el planteamiento del problema, el contexto de la problemática, la justificación, fundamentos y propósito del estudio, utilizando citas bibliográficas, así como la literatura más significativa y actual del tema a escala nacional e internacional.

6) Material y métodos: Debe ser redactado de forma que el lector pueda comprender con facilidad el desarrollo de la investigación. En su caso, describirá la metodología, la muestra y la forma de muestreo, así como se hará referencia al tipo de análisis estadístico empleado. Si se trata de una metodología original, es necesario exponer las razones que han conducido a su empleo y describir sus posibles limitaciones.

7) Análisis y resultados: Se procurará resaltar las observaciones más importantes, describiéndose, sin hacer juicios de valor, el material y métodos empleados. Aparecerán en una secuencia lógica en el texto y las tablas y figuras imprescindibles evitando la duplicidad de datos.

8) Discusión y conclusiones: Resumirá los hallazgos más importantes, relacionando las propias observaciones con estudios de interés, señalando aportaciones y limitaciones, sin redundar datos ya comentados en otros apartados. Asimismo, el apartado de discusión y conclusiones debe incluir las deducciones y líneas para futuras investigaciones.

9) Apoyos y agradecimientos (opcionales): El Council Science Editors recomienda a los autor/es especificar la fuente de financiación de la investigación. Se considerarán prioritarios los trabajos con aval de proyectos competitivos nacionales e internacionales. En todo caso, para la valoración científica del manuscrito, este debe ir anonimizado con XXXX solo para su evaluación inicial, a fin de no identificar autores y equipos de investigación, que deben ser explicitados en la Carta de Presentación y posteriormente en el manuscrito final.

10) Las notas (opcionales) irán, solo en caso necesario, al final del artículo (antes de las referencias). Deben anotarse manualmente, ya que el sistema de notas al pie o al final de Word no es reconocido por los sistemas de maquetación. Los números de notas se colocan en superíndice, tanto en el texto como en la nota final. No se permiten notas que recojan citas bibliográficas simples (sin comentarios), pues éstas deben ir en las referencias.

11) Referencias: Las citas bibliográficas deben reseñarse en forma de referencias al texto. Bajo ningún caso deben incluirse referencias no citadas en el texto. Su número debe ser suficiente para contextualizar el marco teórico con criterios de actualidad e importancia. Se presentarán alfabéticamente por el primer apellido del autor.

B. REVISIONES

Las revisiones de literatura se basan en el análisis de las principales publicaciones sobre un tema determinado; su objetivo es definir el estado actual



del problema y evaluar las investigaciones realizadas. Su estructura responde a las fases del tema/problema, aportes de investigadores o equipos, cambios en la teoría o las corrientes teóricas principales; problemas sin resolver; tendencias actuales y futuras (Giordanino, 2011). De acuerdo con la UNESCO, este tipo de trabajos se conocen también como: “estudios recapitulativos”

1) Título (español) / Title (inglés): El título del artículo deberá ser breve, interesante, claro, preciso y atractivo para despertar el interés del lector. Conciso pero informativo, en castellano en la primera línea y en inglés en la segunda línea. Se aceptan como máximo 85 caracteres con espacio. El título no solo es responsabilidad de los autores, también los Miembros del Consejo Editorial puede proponer cambios al título del documento.

2) Datos de Identificación: Nombres y apellidos completos de cada uno de los autores, organizados por orden de prelación. Se aceptarán como máximo 3 autores por original, aunque pudieren existir excepciones justificadas por el tema, su complejidad y extensión. Cuando se trate de un tema relevante para la comunidad científica, complejo categorialmente dentro de un determinado campo del saber, elaborado por investigadores provenientes de distintos países y continentes, y con evaluación sobresaliente por parte de los revisores internacionales. Junto a cada nombre deberá incluirse, el nombre de la institución en la que trabaja así como la ciudad, el país, el correo electrónico y número completo de ORCID de cada autor aspectos que deberán constar de modo obligatorio en la Carta de Presentación, además deberán ser cargados en el sistema OJS de la revista, en la sección Metadatos y/o en un documento word adjunto al archivo que contiene el trabajo que se propone para la evaluación.

3) Resumen (español) / Abstract (inglés): Tendrá como extensión mínima de 210 y máxima de 220 palabras en español; y de 200 y máximo de 210 palabras en inglés. El resumen describirá de forma concisa y en este orden: 1) Justificación del tema; 2) Objetivos; 3) Metodología; 4) Principales resultados; 5) Principales conclusiones. Ha de estar escrito de manera impersonal “El presente trabajo analiza...”. En el caso del abstract no se admitirá el empleo de traductores automáticos por su pésima calidad.

4) Descriptores (español) / Keywords (inglés): Se deben exponer máximo 6 términos por cada versión idiomática relacionados directamente con el tema del trabajo. Será valorado positivamente el uso de las palabras claves expuestas en el Thesaurus de la UNESCO y en el de la propia revista.

5) Introducción: Deberá incluir una presentación breve del tema, la formulación del propósito u objetivo del estudio, el contexto de la problemática y la formulación del problema que se propone enfrentar, la presentación de la idea a defender, la justificación que explica la importancia, la actualidad y la pertinencia del estudio; el marco metodológico utilizado, y finalmente, una breve descripción de la estructura del documento. En la justificación es necesario utilizar citas bibliográficas así como la literatura más significativa y actual del tema a escala nacional e internacional.

6) Cuerpo o desarrollo del documento: Implica poner en práctica a lo largo de toda la exposición, una actitud crítica que deberá tender hacia la interpelación, a efectos de concitar la atención del tema y el problema tratados. El escritor deberá generar en el lector la capacidad de identificar la intención dialógica de la propuesta y potenciar en el una discusión abierta.

7) Conclusiones: Expone de manera objetiva los resultados y hallazgos; ofrece una visión de las implicaciones del trabajo, las limitaciones, la respuesta tentativa al problema, las relaciones con el objetivo de la investigación y las posibles líneas de continuidad (para cumplir con este objetivo se sugiere no incluir todos los resultados obtenidos en la investigación). Las conclusiones deberán ser debidamente justificadas de acuerdo con la investigación realizada. Las conclusiones podrán estar asociadas con las recomendaciones, evaluaciones, aplicaciones, sugerencias, nuevas relaciones e hipótesis aceptadas o rechazadas.

8) Bibliografía: Es el conjunto de obras utilizadas en la estructuración del texto científico. Deberá incluir únicamente la referencia de los trabajos utilizados en la investigación. Las referencias bibliográficas deberán ordenarse alfabéticamente y ajustarse a las normas internacionales APA, en su sexta edición.

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3.2. Normas para las referencias

PUBLICACIONES PERIÓDICAS

Artículo de revista (un autor): Valdés-Pérez, D. (2016). Incidencia de las técnicas de gestión en la mejora de decisiones administrativas [Impact of Management Techniques on the Improvement of Administrative Decisions]. *Retos*, 12(6), 199-2013. <https://doi.org/10.17163/ret.n12.2016.05>

Artículo de revista (hasta seis autores): Ospina, M.C., Alvarado, S.V., Fefferman, M., & Llanos, D. (2016). Introducción del dossier temático “Infancias y juventudes: violencias, conflictos, memorias y procesos de construcción de paz” [Introduction of the thematic dossier “Infancy and Youth: Violence, Conflicts, Memories and Peace Construction Processes”]. *Universitas*, 25(14), 91-95. <https://doi.org/10.17163/uni.n25.%25x>

Artículo de revista (más de seis autores): Smith, S.W., Smith, S.L. Pieper, K.M., Yoo, J.H., Ferrys, A.L., Downs, E.,... Bowden, B. (2006). Altruism on American Television: Examining the Amount of, and Context Surrounding. Acts of Helping and Sharing. *Journal of Communication*, 56(4), 707-727. <https://doi.org/10.1111/j.1460-2466.2006.00316.x>

Artículo de revista (sin DOI): Rodríguez, A. (2007). Desde la promoción de salud mental hacia la promoción de salud: La concepción de lo comunitario en la implementación de proyectos sociales. *Alteridad*, 2(1), 28-40. (<https://goo.gl/zDb3Me>) (2017-01-29).

LIBROS Y CAPÍTULOS DE LIBRO

Libros completos: Cuéllar, J.C., & Moncada-Paredes, M.C. (2014). *El peso de la deuda externa ecuatoriana*. Quito: Abya-Yala.

Capítulos de libro: Zambrano-Quiñones, D. (2015). *El ecoturismo comunitario en Manglaralto y Colonche*. En V.H. Torres (Ed.), *Alternativas de Vida: Trece experiencias de desarrollo endógeno en Ecuador* (pp. 175-198). Quito: Abya-Yala.

MEDIOS ELECTRÓNICOS

Pérez-Rodríguez, M.A., Ramírez, A., & García-Ruiz, R. (2015). La competencia mediática en educación infantil. Análisis del nivel de desarrollo en España. *Universitas Psychologica*, 14(2), 619-630. <https://doi.org/10.11144/Javeriana.upsy14-2.cmei>

Es prescriptivo que todas las citas que cuenten con DOI (Digital Object Identifier System) estén reflejadas en las Referencias (pueden obtenerse en <http://goo.gl/gfruh1>). Todas las revistas y libros que no tengan DOI deben aparecer con su link (en su versión on-line, en caso de que la tengan, acortada, mediante Bitly: <https://bitly.com/> y fecha de consulta en el formato indicado.

Los artículos de revistas deben ser expuestos en idioma inglés, a excepción de aquellos que se encuentren en español e inglés, caso en el que se expondrá en ambos idiomas utilizando corchetes. Todas las direcciones web que se presenten tienen que ser acortadas en el manuscrito, a excepción de los DOI que deben ir en el formato indicado (<https://doi.org/XXX>).

3.3. Epígrafes, tablas y gráficos

Los epígrafes del cuerpo del artículo se numerarán en arábigo. Irán sin caja completa de mayúsculas, ni subrayados, ni negritas. La numeración ha de ser como máximo de tres niveles: 1. / 1.1. / 1.1.1. Al final de cada epígrafe numerado se establecerá un retorno de carro.

Las tablas deben presentarse incluidas en el texto en formato Word según orden de aparición, numeradas en arábigo y subtituladas con la descripción del contenido.

Los gráficos o figuras se ajustarán al número mínimo necesario y se presentarán incorporadas al texto, según su orden de aparición, numeradas en arábigo y subtituladas con la descripción abreviada. Su calidad no debe ser inferior a 300 ppp, pudiendo ser necesario contar con el gráfico en formato TIF, PNG o JPEG.

4. Proceso de envío

La recepción de artículos es permanente, sin embargo, considerando que la publicación de la Revista Sophia es semestral, el envío de los manus-

critos deberá efectuarse al menos un período antes de la fecha estipulada en la Convocatoria correspondiente.

Los manuscritos deberán remitirse a través del sistema OJS (Open Journal System) de la revista, para lo cual es necesario que el autor se registre previamente en el espacio respectivo (ingrese en el siguiente link: <http://sophia.ups.edu.ec/index.php/sophia/user/register>, complemente el formulario y siga cada uno de los pasos que se sugieren).

Los cinco documentos que deben ser enviados son:

- 1. Carta de Presentación.** Contiene la Declaración en la que se explica que el manuscrito enviado es una aportación original, que no ha sido enviado ni se encuentra en proceso de evaluación en otra revista. Consta la aceptación de las autorías firmantes, para que, en caso de ser procedente, luego del proceso de revisión del manuscrito, el equipo de redacción de Sophia, realice la introducción de cambios en el contenido, en aspectos formales y en el estilo del documento conforme a las exigencias de la Revista. Adicionalmente, la Carta de Presentación contiene el apartado de Cesión de Derechos (cesión parcial de derechos a la editorial) y la Declaración de conflicto de intereses, de acuerdo con las normas editoriales. Este documento deberá ser firmado y consignado a través del sistema OJS, en la sección: “**Ficheros complementarios**”.
- 2. Cover Letter.** En la que se consigna la siguiente información:
Título. En castellano en la primera línea, en letra Arial 14, con negrita y centrado, con un máximo de 85 caracteres con espacio. En inglés en la segunda línea, en letra Arial 14, en cursiva y con negrita.
Nombres y apellidos completos de los autores. Organizados por orden de prelación, se aceptan como máximo 3 autores por original, aunque pudieren existir excepciones justificadas por el tema, su complejidad y extensión. Cuando se trate de un tema relevante para la comunidad científica, complejo categorialmente dentro de un determinado campo del saber, elaborado por investigadores provenientes de distintos países y continentes, y con evaluación sobresaliente por parte de los revisores internacionales. Junto a cada uno de los nombres deberá incluirse, el nombre de la institución en la que trabaja así como la ciudad, el país, el correo electrónico y número de ORCID.
Resumen. Tendrá como extensión mínima 210 y máxima 220 palabras. El resumen describirá de forma concisa y en este orden: 1) Justificación del tema; 2) Objetivos; 3) Metodología; 4) Principales resultados; 5) Principales conclusiones. Ha de estar escrito de manera impersonal “El presente trabajo analiza...”
Abstract. Resumen con todos sus componentes, traducido al inglés y en letra cursiva. No utilizar sistemas de traducción automáticos.

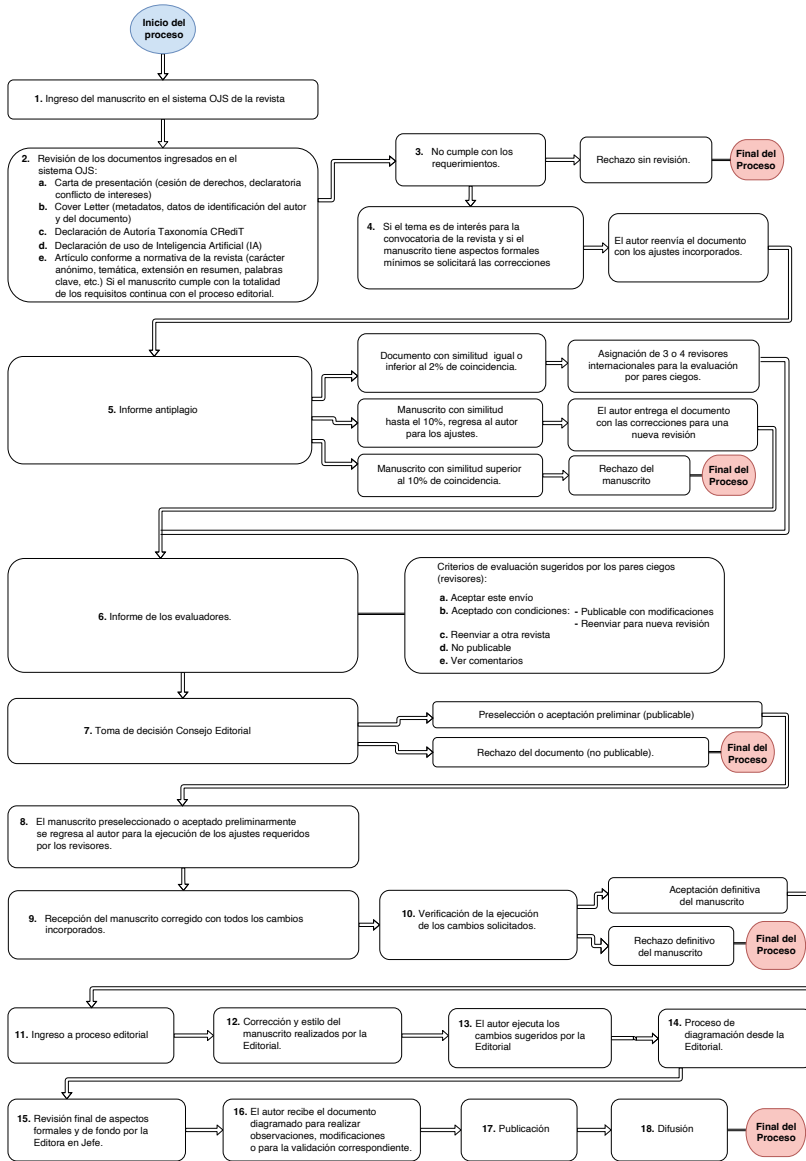


Descriptorios. Máximo 6 términos estandarizados preferiblemente de una sola palabra y del Thesaurus de la UNESCO y de la propia revista, separados por coma (,).

Keywords. Los 6 términos antes referidos traducidos al inglés y separados por coma (,). No utilizar sistemas de traducción automáticos.

3. **Declaración de Autoría (Taxonomía CRediT).** Aplicable para los casos de artículos elaborados por varios autores; detalla la contribución realizada por cada uno de los autores del documento presentado a Sophia, en concordancia con los 14 aspectos descritos según la Taxonomía CRediT. Este documento deberá ser firmado y consignado a través del sistema OJS, en la sección: “**Ficheros complementarios**”. Es necesario utilizar el formato exigido por la Revista.
4. **Declaración de Uso de Inteligencia Artificial (IA).** Consiste en la Declaración formal que el/los autor/es realiza/n acerca del nivel de uso de inteligencia artificial (IA) en la elaboración, en partes o en componentes del documento presentado; explica de manera detallada, clara y precisa la forma en que dicha herramienta fue utilizada en el proceso y/o en la presentación de los resultados de la investigación. El documento debe estar respaldado con la/s firma/s de responsabilidad correspondientes y deberá ser consignado a través del sistema OJS de la Revista.
5. **Manuscrito** totalmente anonimizado, conforme a las normas referidas en precedencia.
Todos los autores han de darse de alta, con sus créditos, en la plataforma OJS, si bien uno solo de ellos será el responsable de correspondencia. Ningún autor podrá enviar o tener en revisión dos manuscritos de forma simultánea, estimándose una carencia de cuatro números consecutivos (2 años).

5. Proceso de evaluación del artículo



6. Intervalo de publicación

El intervalo comprendido entre la recepción y la publicación de un artículo es de 7 meses (210 días).

Indications for External Reviewers of «Sophia»

The **Board of External Reviewers of «Sophia»** is an independent collegiate body whose purpose is to guarantee the excellence of this scientific publication, because the blind evaluation - based exclusively on the quality of the contents of the manuscripts and carried out by experts of recognized International prestige in the field - is, without a doubt, the best guarantee for the advancement of science and to preserve in this header an original and valuable scientific production.

To this end, the **Board of External Reviewers** is made up of several scholars and international scientists specialized in **Education**, essential to select the articles of the greatest impact and interest for the international scientific community. This in turn allows that all the articles selected to publish in «**Sophia**» have an academic endorsement and objectifiable reports on the originals.

Of course, all reviews in «**Sophia**» use the internationally standardized system of double-blind peer evaluation that guarantees the anonymity of manuscripts and reviewers. As a measure of transparency, the complete lists of reviewers are published on the official website of the journal (<http://Sophia.ups.edu.ec/>)



1. Criteria for acceptance/rejection of manuscript evaluation

The editorial team of «**Sophia**» selects those that are considered more qualified in the subject of the manuscript from the list of reviewers of the Board of Reviewers. While the publication requires the maximum collaboration of reviewers to expedite the evaluations and reports on each original, acceptance of the review must be linked to:

- a. **Expertise.** Acceptance necessarily entails the possession of competences in the specific theme of the article to be evaluated.
- b. **Availability.** Reviewing an original takes time and involves careful reflection on many aspects.
- c. **Conflict of interests.** In case of identification of the authorship of the manuscript (despite their anonymity), excessive academic or family closeness to their authors, membership in the same University, Department, Research Group, Thematic Network, Research Projects, joint publications with authors... or any other type of connection or conflict / professional proximity; The reviewer must reject the publisher's invitation for review.
- d. **Commitment of confidentiality.** Reception of a manuscript for evaluation requires the Reviewer to express a commitment of confidentiality, so that it cannot be divulged to a third party throughout the process.

In the event that the reviewer cannot carry out the activity for some of these reasons or other justifiable reasons, he/she must notify the publisher by the same route that he/she has received the invitation, specifying the reasons for rejection.

2. General criteria for the evaluation of manuscripts

a) Topic

In addition to being valuable and relevant to the scientific community, the topic that is presented in the original must be limited and specialized in time and space, without excessive localism.

b) Redaction

The critical assessment in the review report must be objectively written, providing content, quotes or references of interest to support its judgment.

c) Originality

As a fundamental criterion of quality, an article must be original, unpublished and suitable. In this sense, reviewers should answer these three questions in the evaluation:

- Is the article sufficiently novel and interesting to justify publication?
- Does it contribute anything to the knowledge canon?
- Is the research question relevant?

A quick literature search using repositories such as Web of Knowledge, Scopus and Google Scholar to see if the research has been previously covered, may be helpful.

d) Structure

Manuscripts that refer to «Sophia» must follow the IMRDC structure, except those that are literature reviews or specific studies. In this sense, the originals must contain summary, introduction, methodology, results, discussion and conclusion.

- The **title, abstract, and keywords** should accurately describe the content of the article.
- The **review of the literature** should summarize the state of the question of the most recent and adequate research for the presented work. It will be especially evaluated with criteria of suitability and that the references are to works of high impact - especially in WoS,

Scopus, Scielo, etc. It should also include the general explanation of the study, its central objective and the followed methodological design.

- In case of research, in the **materials and methods**, the author must specify how the data, the process and the instruments used to respond to the hypothesis, the validation system, and all the information necessary to replicate the study are collected.
- **Results** must be clearly specified in logical sequence. It is important to check if the figures or charts presented are necessary or, if not, redundant with the content of the text.
- In the **discussion**, the data obtained should be interpreted in the light of the literature review. Authors should include here if their article supports or contradicts previous theories. The conclusions will summarize the advances that the research presents in the area of scientific knowledge, the future lines of research and the main difficulties or limitations for carrying out the research.
- **Language:** It will be positively assessed if the language used facilitates reading and is in favor of the clarity, simplicity, precision and transparency of the scientific language. The Reviewer should not proceed to correction, either in Spanish or English, but will inform the Editors of these grammatical or orthographical and typographical errors.
- Finally, a thorough **review of the references** is required in case any relevant work has been omitted. The references must be precise, citing within the logic of the subject at study, its main works as well as the documents that most resemble the work itself, as well as the latest research in the area.

3. Relevant valuation dimensions

For the case of empirical research articles, «**Sophia**» uses an evaluation matrix of each original that responds to the editorial criteria and to compliance with the publication guidelines. In this sense, the reviewers must attend to the qualitative-quantitative assessment of each of the aspects proposed in this matrix with criteria of objectivity, reasoning, logic and expertise.

If the original is a review of the literature (status of the matter) or other type of study (reports, proposals, experiences, among others), the Editorial Board will send to the reviewers a different matrix, including the characteristics of Structure of this type of originals:

STUDIES, REPORTS, PROPOSALS AND REVIEW	
Valuable items	Score
01. Relevancy of the title (clarity, precision and with a maximum of 85 characters).	0/5
02. They summarize (In an alone paragraph and without epigraphs, minimum / minimal: 210-220 words).	0/5
03. Introduction (brief presentation of the topic; formulation of the problem; it designs to defending or hypothesis to demonstrating; I target; importance of the topic; current importance; methodology; structure of the document).	0/5
04. Review of the bibliographical foundation (Beside using current bibliography to consider the incorporation of Sophia's documents).	0/10
05. Structure and organization of the article (argumentative capabilities, coherence and scientific redaction).	0/10
06. Original contributions and contextualized analyses.	0/5
07. Conclusions that answer to the topic, to the problem and to the raised aim.	0/5
08. Citations and references of agreement to the regulation and to the format requested by the magazine (Any document and author who consists in the section of bibliography must consist in the body of story and viceversa).	0/5
Maximun total	50 points

RESEARCHES	
Valuable items	Score
01. Relevancy of the title (clarity, precision and with a maximum of 85 characters).	0/5
02. They summarize (In an alone paragraph and without epigraphs, minimum / minimal: 210-220 words).	0/5
03. Introduction (brief presentation of the topic; formulation of the problem; it designs to defending or hypothesis to demonstrating; I target; importance of the topic; current importance; methodology; structure of the document).	0/5
04. Review of the bibliographical foundation (Beside using current bibliography to consider the incorporation of Sophia's documents). Methodological rigorous and presentation of instruments of investigation.	0/10

RESEARCHES	
Valuable items	Score
05. Structure and organization of the article (argumentative capabilities, coherence and scientific redaction). Analysis and results of investigation with logical sequence in the text. Presentation of tables and figures without duplicity of information.	0/10
06. Original contributions and contextualized analyses of the information.	0/5
07. Discussion, conclusions and advances that answer to the topic, to the problem and to the raised aim.	0/5
08. Citations and references of agreement to the regulation and to the format requested by the magazine (Any document and author who consists in the section of bibliography must consist in the body of story and vice versa).	0/5
Total	50 points

4. Ethical issues

- a. **Plagiarism:** Although the journal uses plagiarism detection systems, if the reviewer suspects that an original is a substantial copy of another work, he must immediately inform the Editors citing the previous work in as much detail as possible.
- b. **Fraud:** If there is real or remote suspicion that the results in an article are false or fraudulent, it is necessary to inform them to the Editors.
- c. **Omitting the author declaration:** In the article, it is necessary to acknowledge the contributions made by each author according to their level of involvement.
- d. **Conflicts of interest:** In order to ensure transparency and objectivity in the work, any potential conflict of interest that may influence the results or interpretation of the research must be declared.
- e. **Ethical consent and respect for participants:** When the article involves human or animal subjects, the authors must have obtained the relevant ethical permissions and ensure that the research has been conducted in accordance with established ethical principles, respecting the privacy and well-being of the participants.
- f. **Transparency in the use of artificial intelligence (AI):** In cases where AI has been used in the research, the authors must declare its use, clearly and precisely specifying how it has been employed, describing the algorithms, tools, and techniques used, as well as the

data, parts, or sections developed with the support of the tool, following the applicable ethical guidelines.

- g. **Data access and replicability:** The authors must ensure that the data used in the research is accessible for verification and replication, promoting transparency and reproducibility of the results.

5. Evaluation of the originals

After completing the quantitative and qualitative evaluation of the manuscript under review, the reviewer may propose recommendations aimed at improving the quality of the original text. The manuscript will be graded according to the following four options

1. **Accept this submission.** The topic, content, and structure align with the themes outlined in the call for papers and are related to the journal's research areas.
2. **Accepted with conditions.** The article is interesting; however, it does not meet some formal requirements set by the journal to proceed with the editorial process. It is necessary to clearly identify the components that need improvement, list the comments, and specify the paragraphs and pages where modifications are suggested. This criterion involves two aspects: a. Publishable with modifications; and b. Resubmit for further review.
3. **Submit to another journal.** This criterion applies when the topic is interesting, the document is well-structured, but it does not align with the nature and research areas of the journal.
4. **Not publishable.** The article is rejected due to the identified deficiencies, which are justified and reasoned with both qualitative and quantitative evaluation. If the quantitative evaluation scores less than 35 out of 50 points, the report must be detailed and explain the reasons for rejection.

All the above criteria include a comments section, represented by the phrase: See comments.

6. Article Retraction

An article may be retracted from *Sophia: Collection of Philosophy of Education* if, after its publication, the improper use of Artificial Intelligence (AI) tools is verified and was not disclosed by the author(s) in the required AI Usage Declaration submitted during the editorial process.



Even if the manuscript successfully passed all editorial review stages without the timely detection of similarities, overlaps, or inappropriate content related to automated assistance, if it is later confirmed that there was undeclared AI intervention in the creation, writing, analysis, or review of the text, the journal reserves the right to officially retract the article.

Such retraction entails the removal of the published document, the nullification of the original statement made by the authors, and the requirement that the authors publicly acknowledge the error and formally revoke their prior declaration.

This measure reflects *Sophia's* firm commitment to academic integrity, objectivity and rigor in manuscript evaluation, publication quality, scientific transparency, and the ethical advancement of knowledge.



Indicaciones para revisores externos de «Sophia»

El **Consejo de Revisores Externos de «Sophia»** es un órgano colegiado independiente cuyo fin es garantizar la excelencia de esta publicación científica, debido a que la evaluación ciega —basada exclusivamente en la calidad de los contenidos de los manuscritos y realizada por expertos de reconocido prestigio internacional en la materia— es la mejor garantía y, sin duda, el mejor aval para el avance de la ciencia y para preservar en esta cabecera una producción científica original y valiosa.

Para ello, el **Consejo de Revisores Externos** está conformado por diversos académicos y científicos internacionales especialistas en **Filosofía de la Educación**, esenciales para seleccionar los artículos de mayor impacto e interés para la comunidad científica internacional. Esto permite a su vez que todos los artículos seleccionados para publicar en «Sophia» cuenten con un aval académico e informes objetivables sobre los originales.

Por supuesto, todas las revisiones en «Sophia» emplean el sistema estandarizado internacionalmente de evaluación por pares con «doble ciego» (*double-blind*) que garantiza el anonimato de los manuscritos y de los revisores de los mismos. Como medida de transparencia, anualmente se hacen públicos en la web oficial de la revista (<http://Sophia.ups.edu.ec/>) los listados completos de los revisores.

1. Criterios de aceptación/rechazo de evaluación manuscritos

El equipo editorial de «Sophia» selecciona del listado de evaluadores del Consejo de Revisores a aquellos que se estiman más cualificado en la temática del manuscrito. Si bien por parte de la publicación se pide la máxima colaboración de los revisores para agilizar las evaluaciones y los informes sobre cada original, la aceptación de la revisión ha de estar vinculada a:

- a. **Experticia.** La aceptación conlleva necesariamente la posesión de competencias en la temática concreta del artículo a evaluar.
- b. **Disponibilidad.** Revisar un original exige tiempo y conlleva reflexión concienzuda de muchos aspectos.
- c. **Conflicto de intereses.** En caso de identificación de la autoría del manuscrito (a pesar de su anonimato), excesiva cercanía académica o familiar a sus autores, pertenencia a la misma Universidad, Departamento, Grupo de Investigación, Red Temática, Proyectos de Investigación, publicaciones conjuntas con los autores... o cualquier otro tipo de conexión o conflicto/cercanía profesional; el revisor debe rechazar la invitación del editor para su revisión.
- d. **Compromiso de confidencialidad.** La recepción de un manuscrito para su evaluación exige del Revisor un compromiso expreso de



confidencialidad, de manera que éste no puede, durante todo el proceso, ser divulgado a un tercero.

En caso que el revisor no pueda llevar a cabo la actividad por algunos de estos motivos u otros justificables, debe notificarlo al editor por la misma vía que ha recibido la invitación, especificando los motivos de rechazo.

2. Criterios generales de evaluación de manuscritos

a) Tema

La temática que se plantea en el original, además de ser valiosa y relevante para la comunidad científica, ha de ser limitada y especializada en tiempo y espacio, sin llegar al excesivo localismo.

b) Redacción

La valoración crítica en el informe de revisión ha de estar redactada de forma objetiva, aportando contenido, citas o referencias de interés para argumentar su juicio.

c) Originalidad

Como criterio de calidad fundamental, un artículo debe ser original, inédito e idóneo. En este sentido, los revisores deben responder a estas tres preguntas en la evaluación:

- ¿Es el artículo suficientemente novedoso e interesante para justificar su publicación?
- ¿Aporta algo al canon del conocimiento?
- ¿Es relevante la pregunta de investigación?

Una búsqueda rápida de literatura utilizando repositorios tales como Web of Knowledge, Scopus y Google Scholar para ver si la investigación ha sido cubierta previamente puede ser de utilidad.

d) Estructura

Los manuscritos que se remiten a «**Sophia**» deben seguir la estructura señalada en las normas de publicación tanto para las investigaciones empíricas como para revisiones de la literatura o estudios específicos. En este sentido, los originales han de contener resumen, introducción, metodología, resultados, discusión y conclusión.

- El título, el resumen y las palabras clave han de describir exactamente el contenido del artículo.



- La revisión de la literatura debe resumir el estado de la cuestión de las investigaciones más recientes y adecuadas para el trabajo presentado. Se valorará especialmente con criterios de idoneidad y que las referencias sean a trabajos de alto impacto —especialmente en WoS, Scopus, Scielo, etc. Debe incluir además la explicación general del estudio, su objetivo central y el diseño metodológico seguido.
- En caso de investigaciones, en los materiales y métodos, el autor debe precisar cómo se recopilan los datos, el proceso y los instrumentos usados para responder a las hipótesis, el sistema de validación, y toda la información necesaria para replicar el estudio.
- En los resultados se deben especificar claramente los hallazgos en secuencia lógica. Es importante revisar si las tablas o cuadros presentados son necesarios o, caso contrario, redundantes con el contenido del texto.
- En la discusión se deben interpretar los datos obtenidos a la luz de la revisión de la literatura. Los autores deberán incluir aquí si su artículo apoya o contradice las teorías previas. Las conclusiones resumirán los avances que la investigación plantea en el área del conocimiento científico, las futuras líneas de investigación y las principales dificultades o limitaciones para la realización de la investigación.
- Idioma: Se valorará positivamente si el idioma utilizado facilita la lectura y va en favor de la claridad, sencillez, precisión y transparencia del lenguaje científico. El Revisor no debe proceder a corrección, ya sea en español o inglés, sino que informará a los Editores de estos errores gramaticales u ortotipográficos.
- Finalmente, se requiere una profunda revisión de las referencias por si se hubiera omitido alguna obra relevante. Las referencias han de ser precisas, citando en la lógica de la temática a estudiar, sus principales obras así como los documentos que más se asemejen al propio trabajo, así como las últimas investigaciones en el área.

3. Dimensiones relevantes de valoración

Para el caso de artículos de investigaciones empíricas, «**Sophia**» utiliza una matriz de evaluación de cada original que responde a los criterios editoriales y al cumplimiento de la normativa de la publicación. En este sentido los revisores deberán atender a la valoración cuali-cuantitativa de cada uno de los aspectos propuestos en esta matriz con criterios de objetividad, razonamiento, lógica y experticia.

Para el caso de artículos reflexivos, estudios, revisiones de literatura (estado de la cuestión) u otro tipo de estudio (informes, propuestas, experiencias, entre otras), el Consejo Editorial remitirá a los revisores una matriz distinta, comprendiendo las características propias de estructura de este tipo de originales:

ESTUDIOS, PROPUESTAS, INFORMES Y EXPERIENCIAS	
Ítems valorables	Puntaje
01. Pertinencia del título (claridad, precisión y con un máximo de 85 caracteres).	0/5
02. Resumen (En un solo párrafo y sin epígrafes, mínimo/máximo: 210-220 palabras).	0/5
03. Introducción (breve presentación del tema; formulación del problema; idea a defender o hipótesis a demostrar; objetivo; importancia del tema; actualidad; metodología; estructura del documento).	0/5
04. Revisión de la fundamentación bibliográfica (Además de usar bibliografía actual considerar la inclusión de documentos de Sophia).	0/10
05. Estructura y organización del artículo (capacidad argumentativa, coherencia y redacción científica).	0/10
06. Aportaciones originales y análisis contextualizados.	0/5
07. Conclusiones que respondan al tema, al problema y al objetivo planteado.	0/5
0.8. Citaciones y referencias de acuerdo a la normativa y al formato solicitado por la revista (Todo documento y autor que conste en la sección de bibliografía debe constar en el cuerpo del artículo y viceversa).	0/5
Total máximo	50 puntos

INVESTIGACIONES	
Ítems valorables	Puntaje
01. Pertinencia del título (claridad, precisión y con un máximo de 85 caracteres)	0/5
02. Resumen (En un solo párrafo y sin epígrafes, mínimo/máximo: 210-220 palabras).	0/5
03. Introducción (breve presentación del tema; formulación del problema; idea a defender o hipótesis a demostrar; objetivo; importancia del tema; actualidad; metodología; estructura del documento).	0/5

INVESTIGACIONES	
Ítems valorables	Puntaje
04. Revisión de la fundamentación bibliográfica (Además de usar bibliografía actual considerar la inclusión de documentos de Sophia). Rigor metodológico y presentación de instrumentos de investigación.	0/10
05. Estructura y organización del artículo (capacidad argumentativa, coherencia y redacción científica). Análisis y resultados de investigación con secuencia lógica en el texto. Presentación de tablas y figuras sin duplicidad de datos.	0/10
0.6. Aportaciones originales y análisis contextualizados de los datos.	0/5
0.7. Discusión, conclusiones y avances que respondan al tema, al problema y al objetivo planteado.	0/5
0.8. Citaciones y referencias de acuerdo a la normativa y al formato solicitado por la revista (Todo documento y autor que conste en la sección de bibliografía debe constar en el cuerpo del artículo y viceversa).	0/5
Total máximo	50 puntos

4. Cuestiones éticas

- a. **Plagio:** Aunque la revista utiliza sistemas de detección de plagio, si el revisor sospechare que un original es una copia sustancial de otra obra, ha de informar de inmediato a los Editores citando la obra anterior con tanto detalle cómo le sea posible.
- b. **Fraude:** Si hay sospecha real o remota de que los resultados en un artículo son falsos o fraudulentos, es necesario informar de ellos a los Editores.
- c. **Omitir declaración de autoría:** En el artículo, es necesario reconocer las contribuciones realizadas por cada uno de los autores de acuerdo a su grado de participación.
- d. **Conflictos de interés:** Con la finalidad de asegurar la transparencia y objetividad en el trabajo, es preciso declarar cualquier posible conflicto de interés que pueda influir en los resultados o la interpretación de la investigación.
- e. **Consentimiento ético y respeto por los participantes:** Cuando el artículo involucre a sujetos humanos o animales, los autores deben haber obtenido los correspondientes permisos éticos y asegurarse de que la investigación se haya realizado en concordancia con los principios éticos establecidos, respetando la privacidad y el bienestar de los participantes.

- f. **Transparentar el uso de inteligencia artificial (IA):** En el caso de que en la investigación se haya utilizado IA, los autores deben declarar su empleo especificando con claridad y precisión la manera en que ha sido utilizada, describiendo los algoritmos, las herramientas y las técnicas empleadas, así como los datos, las partes o secciones elaboradas con el apoyo de la herramienta siguiendo las directrices éticas aplicables.
- g. **Acceso a los datos y replicabilidad:** Los autores deben garantizar que los datos utilizados en la investigación sean accesibles para su verificación y replicación, promoviendo la transparencia y la reproducibilidad de los resultados.

5. Evaluación de los originales

Luego de completar la evaluación cuanti-cualitativa del manuscrito en revisión, el revisor podrá proponer recomendaciones destinadas a mejorar la calidad del texto original. La calificación del manuscrito se realizará conforme a las siguientes cuatro opciones:

1. **Aceptar este envío.** El tema, contenido y estructura responden a la temática prevista en la convocatoria y están vinculados con las líneas de investigación de la Revista.
2. **Aceptado con condiciones.** El artículo es interesante, sin embargo, no cumple con algunos aspectos de carácter formal exigidos por la revista para avanzar con el proceso editorial. Es preciso identificar con claridad los componentes que deben ser mejorados, debe enumerar los comentarios, especificar los párrafos y páginas en las que se sugiere las modificaciones. Este criterio, implica dos aspectos: a. Publicable con modificaciones; y, b. Reenviar para nueva revisión.
3. **Reenviar a otra revista.** La aplicación de este criterio aplica cuando el tema es interesante, el documento se encuentra bien estructurado, pero no responde a la naturaleza y líneas de investigación de la revista.
4. **No publicable.** El artículo es rechazado debido a las deficiencias detectadas, justificadas y razonadas con valoración cualitativa y cuantitativa. Si en la evaluación cuantitativa obtiene una valoración menos de 35 de los 50 puntos, el informe deberá ser detallado y explicativo de las razones del rechazo.

Todos los criterios anteriores contienen una sección de comentarios, representada por la expresión: Ver comentarios.

6. *Retractación de un artículo*

Un artículo puede ser retractado de la revista *Sophia: Colección de Filosofía de la Educación* cuando, tras su publicación, se verifica el **uso indebido de herramientas de Inteligencia Artificial (IA)** que no fue declarado por el autor o autores en el documento de **Declaración de uso de IA**, exigido como requisito durante el proceso editorial.

Aunque el manuscrito haya superado las distintas fases de revisión sin que se detectaran a tiempo similitudes, coincidencias o contenidos inapropiados vinculados al uso automatizado, si posteriormente se comprueba que hubo intervención no declarada de IA en la creación, redacción, análisis o revisión del texto, la revista se reserva el derecho de **retractar oficialmente el artículo**.

Esta retractación implica el retiro del documento publicado, la renuncia a la afirmación original emitida por los autores en su declaración, y la obligación de que los mismos **reconozcan públicamente el error y revoquen su declaración previa**.

Esta medida forma parte del compromiso de *Sophia* con la integridad académica, la objetividad y rigurosidad en la evaluación de los manuscritos, la calidad de la publicación, la transparencia científica y el avance ético del conocimiento.

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Protocol of Manuscript Evaluation for External Reviewers

Instructions

- The fulfillment of each one of the articles will be valued in agreement to the following protocol.
- The total sum of the articles will determine the approval or rejection of the article.
- The minimal puntaje in order that the article is approved will be of 48/50.

Article Details	
Date of submission for evaluation:	Date of return of evaluation: Article code:
Title of the article to be evaluated:	
SECTION: REPORTS, STUDIES, PROPOSALS AND REVIEWS	
01.- Relevancy of the title (clarity, precision and with a maximum of 85 characters)	Mandatory comments:
	Value from 0 to 5
02.- They summarize (In an alone paragraph and without epigraphs, minimum / minimal: 210-220 words).	Mandatory comments:
	Value from 0 to 5
03.- Introduction (brief presentation of the topic; formulation of the problem; it designs to defending or hypothesis to demonstrating; I target; importance of the topic; current importance; methodology; structure of the document)	Mandatory comments:
	Value from 0 to 5
04.- Review of the bibliographical foundation (Beside using current bibliography to consider the incorporation of Sophia's documents).	Mandatory comments:
	Value from 0 to 10



05.- Structure and organization of the article (argumentative capabilities, coherence and scientific redaction)	Mandatory comments:	
	Value from 0 to 10	
06.- Original contributions and contextualized analyses	Mandatory comments:	
	Value from 0 to 5	
07.- Conclusions that answer to the topic, to the problem and to the raised aim	Mandatory comments:	
	Value from 0 to 5	
08.- Citations and references of agreement to the regulation and to the format requested by the magazine (Any document and author who consists in the section of bibliography must consist in the body of story and vice versa)	Mandatory comments:	
	Value from 0 to 5	
OBTAINED PUNCTUATION	Of the total of 50 predictable points, this assessor grants:	

<p>REDACTED OPINION More detailed if the work does not get 48/50 points, to inform the autor (s). This text is sent verbatim to the autor (s) anonymously</p>			
RECOMMENDATION ON HIS PUBLICATION IN SOPHIA			
Validation criteria	Result		
	Yes	Yes, with conditions	No
01. Widely recommended			
02. Recommended only if his quality is improved attending to the totality of the suggestions realized by the revisers			
03. His publication is not recommended			
<p>PROPOSED CHANGES (In case of “Yes, with conditions”)</p>			

Protocolo de evaluación de manuscritos para revisores externos

Instrucciones

- El cumplimiento de cada uno de los ítems será valorado de acuerdo al siguiente protocolo.
- La suma total de los ítems determinará la aprobación o rechazo del artículo. El puntaje mínimo para que el artículo sea aprobado será de 48/50.

Datos del artículo		
Fecha envío evaluación:	Fecha devolución evaluación:	Código artículo:
Título del artículo a evaluar:		
SECCIÓN: ESTUDIOS, PROPUESTAS, INFORMES Y REVISIONES		
01.- Pertinencia del título (claridad, precisión y con un máximo de 85 caracteres)	Comentarios obligatorios:	
	Valore de 0 a 5	
02.- Resumen (En un solo párrafo y sin epígrafes, mínimo/máximo: 210-220 palabras).	Comentarios obligatorios:	
	Valore de 0 a 5	
03.- Introducción (breve presentación del tema; formulación del problema; idea a defender o hipótesis a demostrar; objetivo; importancia del tema; actualidad; metodología; estructura del documento)	Comentarios obligatorios:	
	Valore de 0 a 5	
04.- Revisión de la fundamentación bibliográfica (Además de usar bibliografía actual considerar la inclusión de documentos de Sophia)	Comentarios obligatorios:	
	Valore de 0 a 10	
05.- Estructura y organización del artículo (capacidad argumentativa, coherencia y redacción científica)	Comentarios obligatorios	
	Valore de 0 a 10	





06.- Aportaciones originales y análisis contextualizados	Comentarios obligatorios:	
	Valore de 0 a 5	
07.- Conclusiones que respondan al tema, al problema y al objetivo planteado	Comentarios obligatorios:	
	Valore de 0 a 5	
08.- Citaciones y referencias de acuerdo a la normativa y al formato solicitado por la revista (Todo documento y autor que conste en la sección de bibliografía debe constar en el cuerpo del artículo y viceversa)	Comentarios obligatorios:	
	Valore de 0 a 5	
PUNTUACIÓN OBTENIDA	Del total de 50 puntos previsibles, este evaluador otorga:	

OPINIÓN REDACTADA (Más detallada si el trabajo no tiene 48/50 puntos, para informar al autor/es) Este texto se remite textualmente al/los autor/es de forma anónima			
RECOMENDACIÓN SOBRE SU PUBLICACIÓN EN SOPHIA			
PUBLICABLE	Resultado		
	SI	Sí, con condiciones	NO
01. Ampliamente recomendado			
02. Recomendado sólo si se mejora su calidad atendiendo a la totalidad de las sugerencias realizadas por los revisores			
03. No se recomienda su publicación			
MODIFICACIONES PROPUESTAS (En caso de «Sí, con condiciones»)			

Checklist prior to sending the manuscript

1. CHECK OF THE MANUSCRIPT, PRIOR TO SENDING	
To facilitate the process of evaluation of the manuscript and to accelerate the report of its possible publication, a final self-review of the manuscript is advised, checking the following questions.	
COVER LETTER	
Title of the manuscript in spanish (maximum 85 characters).	
Title of the manuscript in english (maximum 85 characters).	
The two versions of the title of the manuscript are concise, informative and collect as many identifiable terms as possible.	
The abstract in spanish is included, in a single paragraph and without epigraphs (minimum / maximum: 210/220 words).	
The abstract in english is included, in a single paragraph and without epigraphs (minimum / maximum: 210-220 words).	
Abstracts in spanish and english respond in order to the following issues: justification of the subject, objectives, study methodology, results and conclusions.	
It includes 6 descriptors (in english and spanish) (only simple words, not phrases or combinations of words), with the most significant terms, and if possible standardized.	
The texts in english (title, abstract and descriptors) have been written or verified by an official translator or expert in this language (The use of automatic translators is prohibited).	
All the identification data of the authors are included in the order stipulated in the norms: identification and correspondence data, professional filiations, last academic degree...	
The first and last name of the authors has been normalized.	
Each author is identified with their ORCID code.	
The maximum number of authors is three, with the exception of those works that justify a higher but limited number of authors	
The author(s) have duly signed the letter of presentation of the article, which includes the partial transfer of rights and the declaration of conflict of interest.	
MANUSCRIPT	
It includes title of the manuscript, abstract, and keywords. All in spanish and english.	



An introduction is included that in order contains: brief presentation of the subject; problem formulation; Idea to defend or hypothesis to prove; objective; Importance of the theme; relevance; methodology; structure of the document.	
The text is within the minimum and maximum extension: In the Review sections: 10,000/11,000 words of text (without including the references). In the research section: 8,000/9,500 words of text (without including the references). Reports, Studies: 8,000/9,500 words of text (without including the references).	
In case of research, the manuscript responds to the structure required in the guidelines (IMRDC).	
In the case of a report, study or review, the manuscript respects the minimum structure required by the guidelines.	
The review work includes three citations from three previous issues of Sophia Journal.	
The manuscript explicitly cites and cites the used sources and materials.	
The methodology described for the research work is clear and concise, allowing its replication, if necessary, by other experts.	
The conclusions follow on objective and problem raised are supported by the results obtained and presented in the form of a synthesis.	
If statistical analyzes have been used, they have been reviewed/contrasted by an expert.	
The citations in the text are strictly in accordance with the APA 6 regulations, reflected in the instructions.	
In case of use of final notes, it has been verified that these are descriptive and cannot be integrated into the general citation system. Footnotes are not acceptable.	
The final references have been rigorously reviewed and only those that have been cited in the text are included.	
The final references conform in style and format to the international standards used in Sophia.	
The number of references is according to the theoretical basis of the study carried out	
DOIs have been included in all References that carry it in the following format: doi: https://doi.org/XXXXXX	
All web addresses of references have been shortened with Google Url Shortner	

If figures and charts are included, they should provide additional and not repeated information in the text. Their graphic quality has been verified.	
The number of charts and / or figures does not exceed 6	
If the case, financial support is declared.	
ASPECTOS FORMALES	
The rules have been strictly observed in the use of bold, capital letters, italics and underlines.	
Arial font, size 12 has been used.	
A single line spacing (1) has been used without tab.	
The epigraphs have been properly and hierarchically numbered in Arabic.	
Double spaces have been deleted.	
The typographic quotes « » (with alt + 174 and alt + 175 for opening and closing) have been used.	
Word dictionary for surface spelling has been used.	
The text has been supervised by external staff to ensure grammar and style.	
PRESENTATION	
The signed Letter of Introduction or Presentation is attached, containing a Declaration that explains the originality of the manuscript; the authorization for the journal's editorial team to make necessary changes to the content, formal aspects, and style of the document; the Rights Transfer and the Conflict of Interest Declaration.	
The attached Cover Letter identifies the section of the journal to which the manuscript is submitted, includes informed consent for experimentation (if applicable); provides the article title in both Spanish and English, as required by the journal; details the complete identification information for each author; includes an abstract of at least 210 words and no more than 220 words; provides an abstract in English with a minimum of 200 words and a maximum of 210 words; does not use automatic translation systems; includes 6 keywords in Spanish and 6 keywords in English, separated by commas, in accordance with the UNESCO Thesaurus and the Journal's Thesaurus; and declares any financial support for the research (optional).	
The CRedit Author Statement clearly and accurately explains the contributions made by each of the article's authors and includes the responsibility signatures.	
The Artificial Intelligence Use Statement contains complete, clear, and precise information regarding its presentation	

The manuscript is uploaded to the platform in Word format and without authors identification	
ANNEXED DOCUMENTS	
The five attached documents are: Presentation, Cover Letter, CRediT Author Statement, Artificial Intelligence (AI) Use Statement, and the article in Word format	
The accompanying documents and annexes have been published with Figshare.	



Chequeo previo al envío del manuscrito

1. CHEQUEO DEL MANUSCRITO, PREVIO AL ENVÍO	
Para facilitar el proceso de evaluación del manuscrito y acelerar el informe de su posible publicación, se aconseja una autorevisión final del manuscrito, comprobando las siguientes cuestiones.	
DOCUMENTO PORTADA (Cover Letter)	
Se incluye título del manuscrito en español (máximo 85 caracteres).	
Se incluye título del manuscrito en inglés (máximo 85 caracteres).	
Las dos versiones del título del manuscrito son concisas, informativas y recogen el mayor número de términos identificativos posibles.	
Se incluye resumen en español, en un solo párrafo y sin epígrafes (mínimo/máximo: 210/220 palabras).	
Se incluye abstract en inglés, en un solo párrafo y sin epígrafes (mínimo/máximo 210-220 palabras).	
Los resúmenes en español e inglés responden ordenadamente a las siguientes cuestiones: justificación del tema, objetivos, metodología del estudio, resultados y conclusiones.	
Se incluyen 6 descriptores (en español e inglés) (sólo palabras simples, no sintagmas o combinaciones de palabras), con los términos más significativos, y a ser posibles estandarizados.	
Los textos en inglés (título, resumen y descriptores) han sido redactados o verificados por un traductor oficial o persona experta en este idioma (Se prohíbe el uso de traductores automáticos).	
Se incluyen todos los datos de identificación de los autores en el orden estipulado en la normativa: datos de identificación y correspondencia, filiaciones profesionales, último grado académico.	
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MANUSCRITO	
Se incluye título del manuscrito en español, inglés, resumen, abstract, descriptores y keywords	



Se incluye una introducción que en orden contiene: breve presentación del tema; formulación del problema; idea a defender o hipótesis a demostrar; objetivo; importancia del tema; actualidad; metodología; estructura del documento.	
El trabajo respeta la extensión mínima y máxima permitidas: Sección de Revisiones: 10.000/11.000 palabras de texto (sin incluir las referencias). Investigaciones: 8.000/9.500 palabras de texto (sin incluir las referencias). Informes, Estudios: 8.000/9.500 palabras de texto (sin incluir las referencias).	
En caso de investigación, el manuscrito responde a la estructura exigida en las normas (IMRDC).	
Si se trata de un informe, estudio o revisión, el manuscrito respeta la estructura mínima exigida en las normas.	
En los trabajos de revisión se incluyen tres citas de tres números anteriores de la Revista Sophia.	
El manuscrito explicita y cita correctamente las fuentes y materiales empleados.	
La metodología descrita, para los trabajos de investigación, es clara y concisa, permitiendo su replicación, en caso necesario, por otros expertos.	
Las conclusiones responden al objetivo y al problema planteados, se apoyan en los resultados obtenidos y se presentan en forma de síntesis.	
Si se han utilizado análisis estadísticos, éstos han sido revisados/contrastados por algún experto.	
Las citas en el texto se ajustan estrictamente a la normativa APA 6, reflejadas en las instrucciones.	
En caso de uso de notas finales, se ha comprobado que éstas son descriptivas y no pueden integrarse en el sistema de citación general. No se aceptan notas a pie de página.	
Se han revisado rigurosamente las referencias finales y se incluyen solo aquellas que han sido citadas en el texto.	
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El número de referencias está de acuerdo a la fundamentación teórica del estudio realizado	
Se han incluido los DOI en todas las Referencias que lo lleven con el siguiente formato: doi: https://doi.org/XXXXXX	
Todas las direcciones web de las referencias han sido acortadas con Google Url Shortner	

Si se incluyen figuras y tablas éstas deben aportar información adicional y no repetida en el texto. Su calidad gráfica se ha verificado.	
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En su caso, se declaran los apoyos y/o soportes financieros.	
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PRESENTACIÓN	
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Se adjunta la Cover Letter que identifica la sección de la revista a la que se dirige el documento, el consentimiento informado de experimentación (si el caso lo amerita); contiene el título del artículo en español y en inglés con las características exigidas por la revista, detalla los datos completos de identificación de cada uno de los autores; presenta el resumen mínimo 210 y máximo 220 palabras; contiene el abstract con mínimo 200 y máximo 210 palabras; no utiliza sistemas de traducción automáticos; presenta 6 palabras clave y 6 keywords, separadas por coma, conforme al Thesaurus de la UNESCO y al Thesaurus de la Revista; declara el apoyo y soporte financiero de la investigación (opcional).	
La Declaración de Autoría CRediT explica con claridad y precisión las contribuciones realizadas por cada uno de los autores del artículo y contiene las firmas de responsabilidad.	
La Declaración de Uso de Inteligencia Artificial , contiene la información completa, clara y precisa en lo que amerita a su presentación.	



El manuscrito se sube a la plataforma en formato Word y sin identificación de autores.	
DOCUMENTOS ANEXOS	
Se adjuntan los cinco documentos anexos: Cover Letter; Carta de presentación; Declaración de Autoría CRediT; Declaración de uso de Inteligencia Artificial (IA) y el artículo en versión Word	
Los documentos complementarios y anexos han sido publicados con Figshare.	



Cover Letter

Section (Mark)

Monographic Dossier ___

Miscellaneous ___

Title in Spanish: Arial 14 bold and centered.

Maximum 85 characters with spaces

Title in English: Arial 14 cursive. Maximum 85 characters with spaces

Name author 1 (standardized)

Institution, City, Country

Institutional email

ORCID

Name author 2 (standardized)

Institution, City, Country

Institutional email

ORCID

Name author 3 (standardized)

Institution, City, Country

Institutional email

ORCID

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Abstract (Spanish)

Minimum 210 and maximum 220 words. It must include 1) Justification of the topic; 2) Objectives; 3) Methodology; 4) Main results; 5) Main conclusions. It must be impersonally written “The present paper analyzes...”

Abstract (English)

Minimum 200 and maximum 210 words. It must include 1) Justification of the topic; 2) Objectives; 3) Methodology; 4) Main results; 5) Main conclusions. It must be impersonally written “The present paper analyzes...” Do not use automatic translation systems.

Keywords (Spanish)

6 standardized terms preferably of a single word and of the UNESCO Thesaurus separated by commas (,).

Keywords

The 6 terms referred to in English separated by commas (.). Do not use automatic translation systems.

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Entity:

Country:

City:

Subsidized project:

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Cover Letter

Sección (Marcar)

Dossier Monográfico

Miscelánea

Título en español: Arial 14 negrita y centrado.

Máximo 85 caracteres con espacios

Title in English: Arial 14 cursiva. Máximo 85 caracteres con espacios

Nombre autor 1 (estandarizado)

Institución, Ciudad, País

Correo electrónico institucional

ORCID

Nombre autor 2 (estandarizado)

Institución, Ciudad, País

Correo electrónico institucional

ORCID

Nombre autor 3 (estandarizado)

Institución, Ciudad, País

Correo electrónico institucional

ORCID

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Resumen

Mínimo 210 y máximo 220 palabras. Debe incluir 1) Justificación del tema; 2) Objetivos; 3) Metodología; 4) Principales resultados; 5) Principales conclusiones. Ha de estar escrito de manera impersonal “El presente trabajo analiza...”

Abstract

Mínimo 200 y máximo 210 palabras cursiva. Debe incluir 1) Justificación del tema; 2) Objetivos; 3) Metodología; 4) Principales resultados; 5) Principales conclusiones. Ha de estar escrito de manera impersonal “El presente trabajo analiza...” No utilizar sistemas de traducción automáticos.

Descriptores

6 términos estandarizados preferiblemente de una sola palabra y del Thesaurus de la UNESCO separados por coma (,).

Keywords

Los 6 términos referidos en inglés separados por coma (,). No utilizar sistemas de traducción automáticos.

Apoyos y soporte financiero de la investigación (opcional)

Entidad:

País:

Ciudad:

Proyecto subvencionado:

Código de proyecto:

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PRESENTATION

Letter of introduction

Mr. Editor of «Sophia»

Having read the regulations of the journal «Sophia» and analyzed its coverage, thematic area and approach, I consider that this journal is the ideal one for the dissemination of the work that I hereby attach, for which I beg you to be submitted for consideration for publication. The original has the following title “_____”, whose authorship corresponds to _____.

The authors (s) certify that this work has not been published, nor is it under consideration for publication in any other journal or editorial work.

The author (s) are responsible for their content and have contributed to the conception, design and completion of the work, analysis and interpretation of data, and to have participated in the writing of the text and its revisions, as well as in the approval of the version which is finally referred to as an attachment.

Changes to the content are accepted if they occur after the review process, and also changes in the style of the manuscript by the editorial process of «Sophia».

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It is also declared that they have respected the ethical principles of research and are free from any conflict of interest.

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Signed. (By the author or in the case, all the authors)



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Identification document

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Author first and last name
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Note: Once saved the completed and signed document, it must be register through the OJS system in the section “Complementary Files”.

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PRESENTACIÓN

Carta de Presentación

Sr. Editor de «Sophia»

Leída la normativa de la revista «Sophia» y analizada su cobertura, área temática y enfoque, considero que esta revista es la idónea para la difusión del trabajo que le adjunto, por lo que le ruego sea sometida a la consideración para su publicación. El original lleva por título “_____”, cuya autoría corresponde a _____.

El/los autor/es certifica/n que este trabajo no ha sido publicado, ni está en vías de consideración para su publicación en ninguna otra revista u obra editorial.

El/los autor/es se responsabiliza/n de su contenido y de haber contribuido a la concepción, diseño y realización del trabajo, análisis e interpretación de datos, y de haber participado en la redacción del texto y sus revisiones, así como en la aprobación de la versión que finalmente se remite en adjunto.

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Author 2	Example: Investigation: Conduct a process of research and exploration, specifically by carrying out experiments or collecting data/evidence.
Author 3	

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AUTHOR 2:

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Google Scholar Profile Link:

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of the article titled: submitted to the OJS of the *Sophia Journal: Collection of Philosophy of Education* for review and evaluation within the editorial process, declare that the preparation of the document was supported by Artificial Intelligence (AI) to a percentage of: ____%.

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AUTHOR 2:

Full name:

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El autor o los autores (nombres y apellidos completos).....
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 declara/n que la elaboración del documento se apoyó con Inteligencia
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Announcements 2025-2030 / Convocatorias 2025-2030

CALL FOR PAPERS 2025-2030

Sophia 41

Fundamental categories for understanding the philosophy of education in contemporary society

Lines of research:

- Educational theory
- Ontic and ontological categories in the philosophy of education
- Critical theory of education
- Paradoxes of critical thinking and educational reality
- Nature and philosophy of learning
- Critical perspective on educational methodology and innovation
- Critical pedagogies and methodologies
- Self-concept and metacognitive strategies
- Contributions of formal logic, modal logic, and dialectical logic to understanding the philosophy of education



Article Contributions: We welcome articles from prominent representatives in the field of philosophy, addressing the central theme and its implications in psychology, pedagogy, or other disciplines.

Manuscript Submission Deadline: December 15, 2025

Publication Date of This Edition: July 15, 2026

Sophia 42

Philosophy in media communication and digital media in education

Lines of research:

- Reflections on media education
- Truthfulness of information in digital media
- Philosophical analyses of misinformation phenomena
- Questions on the impact of fake news on society and education
- Critical formation of individuals regarding media and digital technologies
- Reflections on various media and digital formats
- Philosophical foundations of digital literacy and media education
- Critical and competent civic formation in the use of media and digital technologies
- Constructivist and critical approaches to media education
- Philosophical methods for teaching media skills
- Pedagogical strategies for teaching media and digital skills

Sophia 40: 2026.

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Print ISSN:1390-3861 / Electronic ISSN: 1390-8626, pp. 409-424.



- Critical thinking for media analysis
- Technical and creative skills for media content production
- Ethics and responsibility in the digital age
- Ethics and responsibility in creating and disseminating digital content
- Impact of media and technology on society
- Education on online privacy and personal data protection
- Strategies for maintaining digital security and ethics in technology use
- Equitable access to technology and media
- Policies and practices to reduce the digital divide and promote technological inclusion
- The role of media literacy in forming informed and participative citizens
- The use of digital media for civic participation
- Ethical dilemmas related to the use of technology and digital media
- Social responsibility and professional ethics in creating and consuming media content
- Integration of media education into the curriculum
- Critical evaluation of educational programs and practices in media literacy
- Emerging trends in digital literacy and their relevance to the future of education
- Globalization through the internet and the power of Artificial Intelligence as a leveling force in education

Article contributions: We welcome articles from prominent representatives in the field of philosophy, addressing the central theme and its implications in psychology, pedagogy, or other disciplines.

Manuscript submission deadline: July 15, 2026

Publication date of this edition: January 15, 2027

Sophia 43

Philosophy of neuroeducation

lines of research:

- Ethical, epistemological, and methodological implications of applying neuroscientific knowledge in education
- Nature, limitations, and purposes of neuroeducation
- Philosophical reflection on the relationship between neuroscience, psychology, and pedagogy
- Neurobiological foundations of learning
- Brain plasticity and memory consolidation
- Fundamental cognitive processes: attention, perception, memory, and emotions in education
- Principles of neuroscience to improve teaching and learning

- Ethics of neuroeducation
- Informed consent in neuroeducational research
- Critical evaluation of neuroscientific methodologies
- Criticisms of neuroscience and neuroeducation
- Designing learning environments adapted to students' cognitive and emotional needs
- Impact of emotions on learning and memory processes
- Strategies to foster intrinsic motivation and emotional well-being in the classroom
- Lifelong learning and neuroplasticity in adulthood
- Philosophical reflection on the use of emerging technologies like neuroimaging and brain stimulation in educational research
- Philosophical reflection on teacher training and neuroeducation
- Influence of neuroscientific knowledge on educational practice
- Philosophy of mind and neuroeducation
- Moral neuroeducation
- Neuroethics related to education



Article contributions: We welcome articles from prominent representatives in the field of philosophy, addressing the central theme and its implications in psychology, pedagogy, or other disciplines.

Manuscript submission deadline: December 15, 2026

Publication date of this edition: July 15, 2027

Sophia 44

Ethics of artificial intelligence in education

Lines of research:

- Ethical and moral implications of AI development and use
- Transparency, privacy, and data protection
- Ethical handling of personal data
- Autonomy and educational decision-making with AI systems
- Human autonomy and supervision with AI
- Effects of automation and AI in education
- Philosophical reflection on the use of AI
- Strategies to combat misinformation generated by AI
- Criticisms of machine autonomy and robot ethics
- Cultural and ethical differences in the perception and regulation of AI
- Approaches, perspectives, and trends to address the challenges and opportunities of this technology
- The use of AI in virtual educational environments
- Security, justice, and benefits of AI for stakeholders

- Reflections on equity promoted by AI
- Impact of AI on teachers' responsibilities and students' roles
- Ethics as a balance point between technology and human interaction in the educational process
- Educational assessment
- Ethical use of AI to evaluate student performance
- Ethical approach to the implementation of artificial intelligence in education

Article contributions: We welcome articles from prominent representatives in the field of philosophy, addressing the central theme and its implications in psychology, pedagogy, or other disciplines.

Manuscript submission deadline: July 15, 2027

Publication date of this edition: January 15, 2028

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Sophia 45

Philosophy of education in truth and post-truth

Lines of research:

- Conceptions, theories, and criteria of truth
- Epistemological foundations of how we know the truth
- Theories of knowledge and their application in education
- Implications of truth in educational processes
- The truth in the teacher vs. the truth in the student
- Ethics and truth in educational research
- Types of truth, problems, and limits of truth in education
- Education in truth based on critical thinking
- Education in truth in the post-truth era
- Educational dimension of post-truth
- Intellectual honesty, integrity, objectivity, and rigorous pursuit of knowledge
- Truth as the center of the educational process
- The role of truth in civic education and citizen formation
- Relationship between truth, power, and propaganda in education
- Strategies to promote self-reflection and personal pursuit of truth
- Importance of authenticity and honesty in personal and educational development
- Methods of teaching truth
- Truth in the sciences, humanities, and social sciences
- The pursuit of truth in academic and scientific research
- Cultural relativity and truth
- Teaching truth in a multicultural and pluralistic context

Article contributions: We welcome articles from prominent representatives in the field of philosophy, addressing the central theme and its implications in psychology, pedagogy, or other disciplines.

Manuscript submission deadline: December 15, 2027

Publication date of this edition: July 15, 2028

Sophia 46

Philosophy of the environment and education

Lines of research:

- Interaction between environmental philosophy and education
- Philosophical approaches to environmental education
- Environmental ethics in education
- The ethics of respect and care for the environment
- Environmental ethical dilemmas in the classroom
- Transdisciplinary dialogue on sustainable development and regenerative cultures from critical pedagogy
- Philosophy of nature and education, philosophical perspectives on nature influencing education
- The role of education in global sustainability
- Philosophy of ecology in education
- Educational methods to develop ecological awareness
- Environmental education in the formation of ecological values
- Teaching environmental equity
- Ecofeminism in environmental education
- Philosophy of climate change and education
- Climate change from a philosophical perspective
- Critical pedagogy for understanding the environment
- Teaching about the rights of nature
- Philosophical implications of nature
- Philosophical foundations of curriculum integration with environmental topics
- Interdisciplinary curriculum from environmental philosophy
- Anthropocentrism and ecocentrism
- Philosophy and environmental technoscience in education
- Ethics of geoengineering and other technological interventions in the environment
- Ontology of the environment
- Philosophy of ecology
- Criticisms and challenges in implementing the rights of nature

Article contributions: We welcome articles from prominent representatives in the field of philosophy, addressing the central theme and its implications in psychology, pedagogy, or other disciplines.

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Sophia 47

Problems and challenges in the philosophy of education

Lines of research:

- Philosophical foundations of inequality and educational equity in education
- The role of the philosophy of education in cultural diversity
- The role of the philosophy of education in political and civic formation
- Intercultural philosophy and educational competencies in globalization
- Evaluation of the relevance and updating of educational content
- Alternative methods of educational assessment
- Decentralization and governance in education
- Philosophy of education for understanding the mental health of teachers and students
- Pedagogical orientations based on philosophical currents
- Critical thinking in the classroom

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Article contributions: We welcome articles from prominent representatives in the field of philosophy, addressing the central theme and its implications in psychology, pedagogy, or other disciplines.

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Sophia 48

The role of the teacher in character formation and virtue modeling

Lines of research:

- Character education from philosophy
- Articulation of ethical theory, pedagogical practices, and cultivation of a school environment for moral development
- Philosophical strategies for character education
- Teaching values
- Modeling virtues
- Teachers' behavior and decisions

- Teachers as role models of virtues
- Moral and ethical dilemmas in the classroom
- Philosophy for children programs for developing critical thinking skills
- Experiential learning for character education
- Project-based learning as an experience to strengthen human character
- Importance of interdisciplinarity in character formation
- Influence of the school environment in character formation
- The practice of virtues as a mechanism for forming the character of the subject
- Character education through developmental stages
- Teaching values
- Philosophical methods, techniques, and strategies for character formation
- Philosophical-pedagogical proposals for character formation
- Personal reflection and self-knowledge as mechanisms for character formation
- Philosophical currents for character formation
- Ethical theories for character formation
- Theories of moral development (Piaget, Kohlberg, etc.)
- Understanding character formation through the relationship between moral and psychological development
- Role of character education in civic participation and the common good
- Role of religion and spirituality in character education
- Importance of religions in character formation
- Criticisms and defenses of character education programs
- Role of mentors in character education
- Character formation from philosophy
- Character formation from pedagogy
- Philosophical and pedagogical strategies for character education
- Interdisciplinary approach to moral education
- Relationship between character and knowledge
- Theories, practices, and school environments in moral development and character education
- Pedagogy and philosophy in moral education
- The art of character formation from pedagogy and moral philosophy
- Philosophy and pedagogical practices for character development

Article contributions: We welcome articles from prominent representatives in the field of philosophy, addressing the central theme and its implications in psychology, pedagogy, or other disciplines.

Manuscript submission deadline: July 15, 2029

Publication date of this edition: January 15, 2030

Sophia 49

Philosophical foundations and perspectives of transformative education

Lines of research:

- Theoretical foundations of critical consciousness
- Participatory pedagogy as a basis for transformative education
- Contextualized education as key to personal and social transformation
- Interdisciplinarity as a mechanism to address problems
- Critical consciousness as the basis for transformative education
- Participatory pedagogy as a reference for transformative education
- Interdisciplinary approach to education and social transformation
- Foundations of transformative education from Freire to Foucault
- Holistic learning as a foundation for transformative education
- Theory, praxis, and philosophy towards transformative education
- Contextualized education as a basis for personal and social transformation
- Interdisciplinarity and critical consciousness in transformative education
- Philosophical perspectives of transformative education: Freire, Dewey, etc.
- Theories and practices for holistic understanding of transformative education
- Holistic perspective of learning and understanding as a basis for transformative education
- Philosophical foundations of transformative education from Freire, Dewey, Kant, Rousseau, Giroux, Foucault, Gramsci, etc.

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Article contributions: We welcome articles from prominent representatives in the field of philosophy, addressing the central theme and its implications in psychology, pedagogy, or other disciplines.

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Publication date of this edition: July 15, 2030

Sophia 50

Phenomenology of experience in education

Lines of research:

- Study of subjective experience
- Phenomenological methods to understand the mind
- Importance of lived and subjective experiences in integral formation
- Philosophical foundations of lived experience
- Attention and focus as necessary aspects for understanding
- Sensory and cognitive perception in educational experience
- Influence of the temporality of experience on learning

- Impact of time perception on educational experience
- Importance of situational context, physical, educational, social, and cultural space in the learning experience
- Development of personal and professional identity of the main educational agents
- Importance of authenticity in education
- Influence of emotions and feelings on educational experience and learning process
- Relationship between emotion and cognition
- Influence of emotional experiences on understanding and academic performance
- Critical reflection on educational experiences to foster deep and meaningful learning
- Adapting the curriculum to respond to perceptions and needs
- Experiential learning and self-directed discovery
- Reflective and empathetic teaching based on students' perspectives and experiences
- Learning environments to foster interaction and collaboration

Article contributions: We welcome articles from prominent representatives in the field of philosophy, addressing the central theme and its implications in psychology, pedagogy, or other disciplines.

Manuscript submission deadline: July 15, 2030

Publication date of this edition: January 15, 2031

CONVOCATORIAS 2025-2030

Sophia 41

Categorías fundamentales para la comprensión
de la filosofía de la educación en la sociedad actual

Líneas de Investigación: Teoría educativa; categorías ónticas y ontológicas de la filosofía de la educación; teoría crítica de la educación; paradojas del pensamiento crítico y realidad educativa; naturaleza y filosofía del aprendizaje, perspectiva crítica de la metodología y la innovación educativa; pedagogías y metodologías críticas; autoconcepto y estrategias metacognitivas; contribuciones de la lógica formal, de la lógica modal, de la lógica dialéctica para la comprensión de la filosofía de la educación

Generación de artículos desde representantes de la filosofía destacados en el tema central y sus implicaciones en la psicología, en la pedagogía o en otras disciplinas.

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Sophia 42

Filosofía en la comunicación mediática
los medios digitales en la educación

Líneas de Investigación: Reflexiones sobre la educación mediática; la veracidad de la información en medios digitales; análisis filosóficos de los fenómenos de desinformación; cuestionamientos sobre el impacto de las noticias falsas (fake news) en la sociedad y la educación; la formación crítica de los individuos en relación con los medios de comunicación y las tecnologías digitales; reflexiones sobre diversos formatos mediáticos y digitales; fundamentos filosóficos de la alfabetización digital y la educación mediática; formación ciudadana crítica y competente en el uso de medios y tecnologías digitales; enfoques constructivistas y críticos en la educación mediática; métodos filosóficos para la enseñanza de habilidades mediáticas; estrategias pedagógicas para la enseñanza de habilidades mediáticas y digitales; pensamiento crítico para el análisis de medios; habilidades técnicas y creativas para la producción de contenido mediático; ética y responsabilidad en la era digital; ética y responsabilidad en la creación y difusión de contenido digital; impacto de los medios y la tecnología en la sociedad; educación sobre la privacidad en línea y protección de datos personales; estrategias para mantener la seguridad digital y la ética en el uso de tecnologías; acceso equitativo a la tecnología y a los medios de comunicación; políticas y prácticas para redu-

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cir la brecha digital y promover la inclusión tecnológica; rol de la alfabetización mediática en la formación de ciudadanos informados y participativos; el uso de los medios digitales para la participación cívica; dilemas éticos relacionados con el uso de tecnología y medios digitales; responsabilidad social y ética profesional en la creación y consumo de contenido mediático; integración de la educación mediática en el currículo; evaluación crítica de programas y prácticas educativas en alfabetización mediática; tendencias emergentes en la alfabetización digital y su relevancia para el futuro de la educación; La globalización mediante internet y el poder de la Inteligencia Artificial como fuerza de nivelación de la educación

Generación de artículos desde representantes de la filosofía destacados en el tema central y sus implicaciones en la psicología, en la pedagogía o en otras disciplinas.

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Fecha de publicación de esta edición: 15 de enero de 2027



Sophia 43

Filosofía de la neuroeducación

Líneas de Investigación: Implicaciones éticas, epistemológicas y metodológicas de aplicar conocimientos neurocientíficos en la educación; naturaleza, limitaciones y finalidades de la neuroeducación; reflexión filosófica de la relación entre neurociencia, psicología y pedagogía; bases neurobiológicas del aprendizaje; plasticidad cerebral y consolidación de la memoria; procesos cognitivos fundamentales: atención, percepción, memoria y emociones en la educación; principios de la neurociencia para mejorar la enseñanza y el aprendizaje; ética de la neuroeducación; el consentimiento informado en la investigación neuroeducativa; evaluación crítica de las metodologías neurocientíficas; críticas a la neurociencia y a la neuroeducación; diseño de entornos de aprendizaje adaptados a las necesidades cognitivas y emocionales de los estudiantes; impacto de las emociones en los procesos de aprendizaje y memoria; estrategias para fomentar la motivación intrínseca y el bienestar emocional en el aula; aprendizaje a lo largo de la vida y neuroplasticidad en la edad adulta; reflexión filosófica sobre el uso de tecnologías emergentes como la neuroimagen y la estimulación cerebral en la investigación educativa; reflexión filosófica sobre la formación docente y la neuroeducación; influencia de los conocimientos neurocientíficos en la práctica educativa; filosofía de la mente y neuroeducación; neuroeducación moral; neuroética vinculada con la educación.

Generación de artículos desde representantes de la filosofía destacados en el tema central y sus implicaciones en la psicología, en la pedagogía o en otras disciplinas.

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Sophia 44

Ética de la inteligencia artificial en la educación

Líneas de Investigación: Implicaciones éticas y morales del desarrollo y uso de la IA; transparencia, privacidad y protección de datos; manejo ético de los datos personales; autonomía y toma de decisiones educativas con los sistemas de IA; autonomía y supervisión humana con la IA; efectos de la automatización y la IA en la educación; reflexión filosófica sobre el uso de la IA; estrategias para combatir la desinformación generada por la IA; críticas sobre la autonomía de las máquinas y la ética de los robots; diferencias culturales y éticas en la percepción y regulación de la IA; enfoques, perspectivas y tendencias para abordar los desafíos y oportunidades que presenta esta tecnología; el uso de la IA en entornos virtuales educativos; seguridad, justicia y beneficios de la IA para los involucrados; reflexiones sobre la equidad promovida desde la IA; impacto de la IA en las responsabilidades del docente y en el rol del estudiante; la ética como punto de equilibrio entre tecnología e interacción humana en el proceso educativo; la evaluación educativa; uso ético de la IA para evaluar el rendimiento estudiantil; enfoque ético en la implementación de la inteligencia artificial en la educación.

Generación de artículos desde representantes de la filosofía destacados en el tema central y sus implicaciones en la psicología, en la pedagogía o en otras disciplinas.

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Sophia 45

Filosofía de la educación en la verdad y la post-verdad

Líneas de Investigación: Concepciones, teorías y criterios de verdad; fundamentos epistemológicos de cómo conocemos la verdad; teorías del conocimiento y su aplicación en la educación; implicaciones de la verdad en los procesos educativos; la verdad en el docente vs la verdad en el estudiante; ética y verdad en la investigación educativa; clases de verdad, problemas y límites de la verdad en la educación; educación en la verdad basada en el pensamiento crítico; educación en la verdad en la era de la posverdad; dimensión educativa de la posverdad; honestidad intelectual, integridad, objetividad y búsqueda rigurosa del conocimiento; la verdad como centro del proceso educativo; el rol de la verdad en la educación cívica y en la formación de ciudadanos; relación entre verdad, poder y propaganda en la educación; estrategias para fomentar la auto-reflexión y la búsqueda personal de la verdad; la importancia de la autenticidad y la honestidad en el desarrollo personal y educativo; métodos de enseñanza de la verdad; la verdad en las ciencias, las humanidades y las ciencias sociales; la búsqueda de la verdad en la investigación académica y científica;

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relatividad cultural y verdad; enseñanza de la verdad en un contexto multicultural y pluralista.

Generación de artículos desde representantes de la filosofía destacados en el tema central y sus implicaciones en la psicología, en la pedagogía o en otras disciplinas.

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Sophia 46

Filosofía del medio ambiente y educación

Líneas de Investigación: Interacción entre filosofía del medio ambiente y la educación; enfoques filosóficos en la educación ambiental; ética ambiental en la educación; la ética de respeto y cuidado por el medio ambiente; dilemas éticos ambientales en el aula; diálogo transdisciplinar sobre el desarrollo sostenible y culturas regenerativas desde la pedagogía crítica; filosofía de la naturaleza y educación, perspectivas filosóficas sobre la naturaleza que influyen en la educación; el papel de la educación en la sostenibilidad global; filosofía de la ecología en la educación; métodos educativos para desarrollar una conciencia ecológica; la educación ambiental en la formación de valores ecológicos; enseñanza de la equidad ambiental; ecofeminismo en la educación ambiental; filosofía del cambio climático y educación; cambio climático desde una perspectiva filosófica; pedagogía crítica para la comprensión del medio ambiente; enseñanza sobre los derechos de la naturaleza; implicaciones filosóficas sobre la naturaleza; fundamentos filosóficos de la integración curricular con temas ambientales; currículo interdisciplinario desde la filosofía ambiental; antropocentrismo y ecocentrismo; filosofía y tecnología ambiental en la educación; ética de la geoingeniería y otras intervenciones tecnológicas en el medio ambiente; ontología del medio ambiente; filosofía de la ecología; críticas y desafíos en la implementación de los derechos de la naturaleza.

Generación de artículos desde representantes de la filosofía destacados en el tema central y sus implicaciones en la psicología, en la pedagogía o en otras disciplinas.

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Sophia 47

Problemas y desafíos de la filosofía de la educación

Líneas de Investigación: Fundamentos filosóficos de la desigualdad y la equidad educativa en la educación; papel de la filosofía de la educación en la diversidad cultural; función de la filosofía de la educación en la formación política y ciudadana; filosofía intercultural y competencias educativas en la globalización; evaluación de la relevancia y actualización del contenido educativo; métodos alternativos de evaluación educativa; descentralización y gobernanza en la educación; la filosofía de la educación para la comprensión de la salud mental de docentes y estudiantes; orientaciones pedagógicas basadas en corrientes filosóficas; el pensamiento crítico en el aula.

Generación de artículos desde representantes de la filosofía destacados en el tema central y sus implicaciones en la psicología, en la pedagogía o en otras disciplinas.

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Sophia 48

La función del docente en la formación del carácter y en la modelación de virtudes

Líneas de Investigación: La educación del carácter desde la filosofía; articulación de teoría ética, prácticas pedagógicas y cultivo de un ambiente escolar para el desarrollo moral; estrategias filosóficas para la educación del carácter; enseñanza de valores; modelado de virtudes; comportamiento y decisiones de los docentes; docentes como modelos de las virtudes; dilemas morales y éticos en el aula; programas de filosofía para niños para el desarrollo de habilidades de pensamiento crítico; el aprendizaje experiencial para la educación del carácter; el aprendizaje basado en proyectos como experiencia para fortalecer el carácter del ser humano; importancia de la interdisciplinariedad en la formación del carácter; influencia del ambiente escolar en la formación del carácter; la práctica de las virtudes como mecanismo para la formación del carácter del sujeto; la educación del carácter a través del desarrollo evolutivo; la enseñanza de valores; métodos filosóficos, técnicas y estrategias para formar el carácter; propuestas filosófico-pedagógicas para la formación del carácter; la reflexión personal y el autoconocimiento como mecanismos para la formación del carácter; corrientes filosóficas para la formación del carácter; teorías éticas para la formación del carácter; teorías del desarrollo moral (Piaget, Kohlberg, etc.); comprensión de la formación del carácter desde la relación entre desarrollo moral y desarrollo psicológico; función de la educación del carácter en la participación ciudadana y el bien común; rol de la religión y la espiritualidad en la educación del carácter; importancia de las religiones en la formación del carácter; críticas y defensas de los programas de educación del carácter; rol de los mentores en la educación del carácter; la formación del carácter desde la filosofía; formación del carácter

desde la pedagogía; estrategias filosóficas y pedagógicas para la educación del carácter; enfoque interdisciplinario en la educación moral; relación carácter y conocimiento; teorías, prácticas y ambientes escolares en el desarrollo moral y la educación del carácter; pedagogía y filosofía en la educación moral; el arte de formar el carácter desde la pedagogía y la filosofía moral; filosofía y prácticas pedagógicas para el desarrollo del carácter

Generación de artículos desde representantes de la filosofía destacados en el tema central y sus implicaciones en la psicología, en la pedagogía o en otras disciplinas.

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Sophia 49

Fundamentos y perspectivas filosóficas de la educación transformadora



Líneas de Investigación: Fundamentos teóricos sobre la conciencia crítica; la pedagogía participativa como base para la educación transformadora; educación contextualizada clave para la transformación personal y social; la interdisciplinariedad como mecanismo para abordar problemas; conciencia crítica como base para la educación transformadora; la pedagogía participativa como referente para una educación transformadora; enfoque interdisciplinario para la educación y transformación social; fundamentos de la educación transformadora de Freire a Foucault; aprendizaje holístico como fundamento para la educación transformadora; teoría, praxis y filosofía en clave hacia una educación transformadora; la educación contextualizada como base para la transformación personal y social; interdisciplinariedad y conciencia crítica en la educación transformadora; perspectivas filosóficas de la educación transformadora: Freire, Dewey, etc.; teorías y prácticas para la comprensión holística de la educación transformadora; perspectiva holística del aprendizaje y la comprensión como base para la educación transformadora; fundamentos filosóficos de la educación transformadora desde Freire, Dewey, Kant, Rousseau, Giroux, Foucault, Gramsci; etc.

Generación de artículos desde representantes de la filosofía destacados en el tema central y sus implicaciones en la psicología, en la pedagogía o en otras disciplinas.

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Fecha de publicación de esta edición: 15 de julio de 2030

Sophia 50

Fenomenología de la experiencia en la educación

Líneas de Investigación: Estudio de la experiencia subjetiva; métodos fenomenológicos para comprender la mente; importancia de las experiencias vividas y subjetivas en la formación integral; fundamentos filosóficos de la experiencia vivida; atención y focalización como aspectos necesarios para la comprensión; la percepción sensorial y cognitiva en la experiencia educativa; influencia de la temporalidad de la experiencia en el aprendizaje; incidencia de la percepción del tiempo en la experiencia educativa; importancia del contexto situacional, del espacio físico educativo, social y cultural en la experiencia del aprendizaje; desarrollo de la identidad personal y profesional de los principales agentes de la educación; importancia de la autenticidad en la educación; influencia de las emociones y los sentimientos en la experiencia educativa y en el proceso de aprendizaje; relación entre emoción y cognición; influencia de las experiencias emocionales en la comprensión y rendimiento académico; reflexión crítica sobre las experiencias educativas para fomentar el aprendizaje profundo y significativo; adaptación del currículo para responder a las percepciones y necesidades. aprendizaje experiencial y el descubrimiento autodirigido; enseñanza reflexiva y empática basada en las perspectivas y vivencias de los estudiantes; ambientes de aprendizaje para fomentar la interacción y la colaboración.

Generación de artículos desde representantes de la filosofía destacados en el tema central y sus implicaciones en la psicología, en la pedagogía o en otras disciplinas.

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