Chapter 03 / Capítulo 03

New literacies in the age of AI: Ethics, teaching, and writing (English Version)
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Planning to Think with AI: The 5E Model as a Framework for Developing Soft-Skills Development and Reflective Teacher Practices

Planificar para pensar con IA: el modelo 5E como marco para desarrollar habilidades blandas y escritura docente reflexiva

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ABSTRACT

The purpose of this paper is to analyze the integration of Generative AI (GenAI) into the design, planning, and teaching of soft skills through the 5E learning cycle (BSCS 5E Model). The motivation for this proposal is to offer an alternative to the cognitive and pedagogical challenges, while also addressing the ethical considerations inherent in using GenAI in writing processes. Consequently, the objective is the design and documentation of a didactic unit utilizing the 5E method—Engage, Explore, Explain, Elaborate, Evaluate, which integrates GenAI education, reflective writing by educators, and authentic formative assessment. The educational intervention employed is backward design, with clearly formulated, specific, and measurable learning objectives. This approach ensures that the final product created by students is aligned with the planned outcomes; examples include metacognitive journals, critical analysis sheets, personal improvement plans, and empathetic feedback, all while incorporating the transparent use of GenAI tools.
The primary effects observed were the use and strengthening of self-reflection, an improvement in the quality of written argumentation, greater ethical awareness regarding the uses of GenAI, and the proper citation of sources. In conclusion, the 5E cycle provides a robust framework for integrating AI without replacing the educator. However, this requires transparency, clear assessment criteria, and the ongoing training of teaching staff in emerging digital literacy and the ethics of GenAI use.

Keywords: Artificial Intelligence; Digital Literacy; Ethics; Soft Skills; The 5E Learning Cycle (BSCS Model); Education With Artificial Intelligence.

RESUMEN

El propósito de este trabajo es analizar la incorporación de la IAGen en los procesos de diseño, planificación y enseñanza de habilidades blandas mediante el ciclo de aprendizaje 5E (BSCS 5E). La motivación de esta propuesta es brindar una alternativa a los retos de carácter cognitivo y pedagógico, sin olvidar de los aspectos éticos que sugiere el utilizar la IAGen en procesos de escritura definiendo de esta forma que el objetivo es el diseño y documentación de una unidad didáctica con el método 5E: Engage, Explore, Explain, Elaborate, Evaluate, que une la enseñanza en IAGen, la escritura reflexiva por parte del profesorado y la evaluación formativa real. La intervención educativa utilizada es el diseño inverso, con objetivos de aprendizaje claramente formulados de modo concreto y medibles, buscando que el producto realizado

por los estudiantes esté alineado con lo propuesto en la planeación, por ejemplo, diarios metacognitivos, fichas críticas, planes de mejora personal y retroalimentación empática, incorporando el uso transparente de herramientas IAGen. Los principales efectos observados fueron el uso y fortalecimiento de la autorreflexión, mejora en la calidad de la argumentación escrita, mayor conciencia ética sobre los usos de la IAGen y la citación de fuentes. A modo de conclusión, el ciclo de las 5E ofrece un marco sólido para integrar la IAGen sin sustituir al docente, pero esto requiere transparencia, los criterios de evaluación claros y la formación continua del cuerpo docente en la alfabetización digital emergente y la ética del uso de la IAGen.

Palabras clave: Inteligencia Artificial; Alfabetización Digital Emergente; Ciclo de Aprendizaje 5E (5E Modelo BSCS); Ética; Habilidades Blandas; Educación con IA.

INTRODUCTION

This paper analyzes the challenges and opportunities of integrating Generative Artificial Intelligence (GAI) into the teaching of soft skills using the 5E instructional model. It is assumed that GAI not only mediates access to information but also participates in the co-production of ideas, blurring the boundary between searching, writing, and evaluating texts. This cognitive shift reconfigures pedagogical practice and academic writing by requiring students and teachers to adopt new forms of metacognition, critical evaluation of evidence, and ethical criteria for use, especially in contexts where authorship, originality, and transparency become substantive issues (Holmes, Bialik, & Fadel, 2019; Selwyn, 2024; UNESCO, 2024).

It is also recognized that teaching soft skills, such as critical thinking, assertive communication, empathy, collaborative work, academic self-regulation, and ethics, to name a few, requires sustained active experiences with opportunities for dialogue, feedback, and transfer to authentic situations. In this framework, IAGen-mediated environments are not approached as ends in themselves, but as cognitive and textual mediations that expand the repertoire of teaching practices, provided they are articulated with coherent curriculum designs and formative assessment (Bybee, 2015; Bastida-Bastida, 2019). From this perspective, IAGen does not replace the work of the professional but instead requires redefining the teaching role toward the design of experiences, the selection and organization of content, the coordination and management of academic discourse, and, finally, the ethical mediation of decisions.

DEVELOPMENT

ENGAGE: THE EMPTY MIRROR

To understand how the ethical and intellectual conflicts arising from this change translate into educational practice, a realistic scenario involving a university student is presented.

Pamela, who is at the end of the semester, faces a task that will determine whether she passes her course: writing a critical article on the "Challenges of authentic assessment in the contemporary educational context." She is short on time and feels much pressure due to complex responsibilities, so she decides to use an IAGen tool. She decides to write a simple prompt that she considers proper: "Write a 2,500-word critical article on the challenges of authentic assessment in the contemporary educational context."

In a matter of seconds, she obtains a text that is perfect in form: *"Authentic assessment is presented in contemporary education as a fundamental pillar for evaluating meaningful learning in students, transcending archaic standardized methods. Among its main challenges*

are the difficulty of implementing it at scale, the required teacher training, and the subjectivity inherent in its assessment criteria. However, overcoming these obstacles is imperative to align assessment with 21st-century skills..." (DeepSeek, 2025)[1]

Upon reading, one notices the text's coherence, impersonal language, correct use of academic vocabulary, precision in terminology, and logical structure of ideas. In short, Pamela feels relieved because she believes she has met the essay's requirements. However, is this essay really a critical reflection? What role does critical thinking play in the face of an intelligence that does not understand what it produces? What does it mean to learn and write in the age of AI?

Situations such as the one described above reflect an emerging trend. The review conducted by Lo (2023) points out that one of the most common uses of IAGen in higher education is content generation; however, the author notes a lack of critical analysis of learning and of research providing explicit details on the real impact of IAGen on educational processes. The real problem is not the use of IAGen, but instead its unreflective use and passive attitude toward its content. The text generated by IAGen for Pamela functions as an empty mirror: it returns a generic image of the topic, but it cannot reflect the writer's experiences, doubts, ethical conflicts, critical thinking, or unique voice. Recent literature shows growing concern about ethics and underscores the urgency of guiding students on their own behavior, academic honesty, and the ethical use of AI (Chan, 2023).

However, this articulation between soft skills and artificial intelligence is far from automatic and is fraught with risks. Pamela's situation is not an isolated event, but rather a symptom of greater challenges. These challenges were mentioned by Selwyn (2024), who argues that the publicity surrounding AI has created "difficulties in engaging in balanced and reasoned discussions" about its social implications (p. 3), leading education to a point where the urgency to adopt the technology is overshadowing an essential reflection on its nature and limits.

This observation by Selwyn (2024) is paramount: educational IAGen is not magic, but a complex statistical procedure, "mathematics, data, and computer programming, performed by humans" (p. 4). Dispelling this myth is the first step in understanding why the link between IAGen and the development of soft skills is far from automatic and fraught with risks. If AI does not "understand" what it produces (Selwyn, 2024, p. 4), but instead assembles text based on probabilities, it cannot, on its own, foster genuine critical thinking or creativity. On the contrary, its statistical logic can reinforce existing biases and translate into forms of unequal distribution of educational opportunities, reproducing dynamics of exclusion (Selwyn, 2024, p. 6) and requiring students and teachers to adapt to its limitations, in a phenomenon of "reverse adaptation" (Selwyn, 2024, p. 8). Ultimately, this brings us to the central assertion that Selwyn recovers from McQuillan: "Who has the opportunity to shape IAG becomes a question of power" (McQuillan, 2023, cited by Selwyn, 2024, p. 13).

EXPLORE: CONVERGENT TRANSFORMATIONS AND THE IMPERATIVE OF LITERACY

Returning to Pamela's case, it is symptomatic of three concurrent transformations reshaping the educational landscape, as identified in recent literature (Bond et al., 2024).First, a cognitive transformation: students like Pamela require not only technical but also critical AI literacy, enabling them to discern between linguistic simulation and constructed knowledge. The review by Bond et al. (2024) highlights the urgent need for "greater ethical, methodological, and

[1]*Texto generado por herramienta de IA, DeepSeek. Sin fuentes académicas, se utiliza con fines ilustrativos.*

contextual consideration" and "interdisciplinary approaches" (p. 1) in the application of AIGen. This requires designing educational experiences that specify the limits and potential of these tools.

Second, a pedagogical transformation: the ease of access to texts generated by AIGen demands teaching models that organize sequences in which AIGen functions for dialogue and comparison, not as a final product. The predominance of "adaptive systems and personalization" (Bond et al., 2024, p. 18) in research on IAGen in higher education highlights the potential of these tools but also underscores the need for a robust pedagogical framework, such as the 5E model, to guide the activation of critical thinking.

Third, an ethical and cultural transformation: Pamela's case study highlights the urgent need to establish clear guidelines for transparency. Bond et al. (2024) identify "lack of ethical consideration" as the most frequently reported challenge in the reviews analyzed (p. 29), underscoring the need to educate on the responsible use of AI, including citation, declaration of use, and reflection on the limits of co-authorship.

The authors highlight a "call for greater ethics" (p. 33), emphasizing that "future primary research must ensure continued consideration of participant consent, data collection procedures, and data storage" (p. 33), principles that can be extrapolated to the use of AIGen in student assessmen.

We currently live in an era of converging transformations, where digitization, artificial intelligence, and other technologies do not advance in isolation but are intertwined, redefining labor markets, industries, and everyday life. Despite this, a worrying gap remains. As Long and Magerko (2020) warn, misconceptions about AIGen limit people's ability to use it, collaborate with it, and act as critical consumers of its products. This raises the question: how can we move toward that future if we do not understand the forces that shape it? (Long and Margeko, 2020, p.1)

EXPLAIN: IAGen LITERACY AS A CONCEPTUAL FRAMEWORK

Given this scenario, it is not enough to implement IAGen tools; it is essential to train people in critical understanding. Long and Margeko (2020) propose an indispensable framework for this purpose. They define IAGen literacy as "a set of competencies that enables individuals to evaluate IAGen technologies critically; communicate and collaborate effectively with them; and use them as a tool online, at home, and in the workplace" (p. 2).

These authors' framework is organized into five thematic areas:

1) What is AI? Develop skills such as recognizing it, understanding intelligence, addressing its interdisciplinary nature, and distinguishing between general and narrow AI (pp. 3–4).

2) What can AIGen do? Identify its strengths and limitations, and imagine possible applications (p. 4).

3) How does IAGen work? Understand its processes of representation, decision-making, machine learning, human role, and data literacy (pp. 5–6).

4) How can AIGen be used? Critically evaluate its implications (p. 7).

5) How do people perceive IAGen? Reflect on preconceptions and programmability (p. 9).

In summary, convergent transformations will not be successful if the focus remains solely on

technology and the human component is neglected. Long and Magerko's (2020) IAGen literacy framework offers guidance on building that component and ensuring conscious and ethical integration.

Investing in IAGen literacy for students and teachers is not an expense; it is a strategic investment that lays the foundation for:

- A prepared and adaptable future workforce.
- Critical and responsible citizens.
- More ethical and equitable technology adoption.

Integrating this framework at the heart of methodological strategies will enable convergent transformations not only in people, but with and for them, closing gaps and building a truly inclusive digital future.

ELABORATE – ELABORATE TO TRANSFORM: THINKING WITH IAGen FROM THE 5E MODEL

The 5E model: a pedagogy for active thinking

The learning mediation strategy known as BSCS 5E is among the most contemporary constructivist approaches. Designed by the *Biological Sciences Curriculum Study (BSCS)* and systematized by Bybee (2015), this instructional model organizes teaching into a cycle or sequence consisting of five phases: *Engage, Explore, Explain, Elaborate, and Evaluate*, which support the dynamic construction of knowledge based on experience, reflection, and active communication. More than a methodology, the 5E model is a strategy; it represents a cognitive structure that supports teachers in planning and guiding learning processes in which students activate prior knowledge, explore, and reconstruct meanings.

This model links knowledge with curiosity, motivation, and self-regulation of the learning process, in which metacognition and comprehension are applied. In this sense, the 5E cycle is cyclical and dynamic; each phase allows for the review of previous phases and integrates new experiences and perspectives. This is what has been called "opportune moments for learning" (Bybee, 2015, p. 64).

Adapting the 5E learning model to the digital context broadens pedagogical possibilities. It demonstrates that using technological tools within the 5E cycle enhances creativity and teacher reflection. It facilitates the co-construction of knowledge and formative assessment (Bastida-Bastida, 2019). The incorporation of artificial intelligence creates an environment conducive to applying the 5E model, as AIGen tools can function as mediators of cognitive processes, promoting the development of soft skills, particularly critical thinking, self-regulation of learning, creativity, and communication.

In line with UNESCO's *Guide to the Use of Generative AI in Education and Research* (2024), the adoption of the 5E model in AI-mediated environments requires ethical and critical digital literacy, with technology used to support human development rather than replace thinking. GIA can be a powerful tool to support learning, but, as Selwyn (2024) warns, its potential must be understood within the limits of human and pedagogical experience: "education cannot simply be reorganized to become machine-readable" (p. 10).

Based on this analysis, the 5E cycle offers a framework for planning strategies that think with IAGen. In other words, it is a space where technology participates in the learning process, but without replacing the voice, ethics, or creativity of human beings.

Reflective interpretation of the 5E cycle

As explained above, the 5E model is a methodological framework linked to the cognitive and ethical evolution of learning.

Each of its elements represents a different way of acting, thinking, and experiencing knowledge. Applied to situations involving IAGen, the cycle proposes a path that originates from curiosity and leads to higher levels, such as critical reflection, simultaneously integrating cognitive processes and social aspects.

Engage

This is the first phase of the 5E Cycle. *Engage* aims to spark students' interest and activate their prior knowledge through questions or experiences that provoke curiosity. When thinking about contexts with IAGen, this first stage allows us to denaturalize the automatic use of technologies, promoting critical awareness of how automated texts and responses are generated (Bastida-Bastida, 2019).

Bybee (2015) states that the purpose is to "link prior ideas and new knowledge" (p. 71). In lessons, this link can be made through ethical dilemmas or by highlighting experiences such as Pamela's, whose dependence on AIGen demonstrates a lack of critical thinking. *Engage:* This is the moment to spark interest with a question that could be: What does it mean to think for oneself in the age of artificial intelligence?

Explorer

It is during this phase that students can observe, explore, model, inquire, construct, propose hypotheses, and experiment with meanings through their interactions with their environment.

In IAGen-mediated teaching processes, this phase is interpreted in guided interactions with generative tools such as ChatGPT, Gemini, DeepSeek, among others. The purpose is to recognize their potential, areas for optimization, and limitations.

Bastida-Bastida (2019) indicates that guided exploration with technologies favors "greater openness and willingness on the part of teachers toward innovation" (p. 74). Students can then compare human responses with those generated by IAGen, analyze biases, or review sources. Curiosity becomes action, method. Exploring is not just about using, but rather about understanding what is being used.

Explain

This phase involves "reflection on the part of the student; they try to explain in their own words and use different means to do so. The teacher clarifies ideas, proposes new ideas or models, and provides feedback" (Bastida-Bastida, 2019, p. 75). Bybee (2015) defines the *Explain* phase as the moment when "learning becomes explicit" (p. 84). Now, within the framework of IAGen, it involves presenting the technological experience in academic, ethical, and human contexts. Along the same lines, students are expected to discuss aspects of authorship, originality, and reliability of the texts generated by IAGen, so that the classroom becomes a laboratory for argumentation. This phase promotes the development of soft skills that we seek to strengthen, such as critical and reflective thinking, active listening, assertive communication, and empathy.

Elaborate

In *Elaborate,* students put what they have learned into practice and must use scientific language (Bástida-Bástida, 2018, p. 75). Knowledge is applied and expanded, with the objective

of this phase being to "extend understanding and transfer to new situations" (Bybee, 2015, p. 97).

Within the framework of IAGen, *Elaborate* seeks to integrate the elements learned to unify technological competencies with soft skills. Teachers accompany students in designing creative products and projects, where IAGen is a collaborative tool in the cognitive process and does not replace human endeavor. In this way, Pamela's experience can be reinterpreted at this stage. Her article, initially an empty mirror, with the appropriate support from the teacher, could become an opportunity for reflective learning, where ideas are contrasted, cited ethically, and constructed with her own voice.

Evaluate

Finally, the *Evaluate* phase extends across all stages of the 5E cycle, thereby promoting self-evaluation (Bastida-Bastida, 2019, p. 75). The purpose of this stage is to reflect on the influence of emerging technologies on comprehension and writing. The use of tools such as reflective logs, metacognitive journals, and empathetic feedback is one of the strategies consistent with the IAGen literacy proposed by UNESCO (2014), which emphasizes "responsible, transparent use for human development purposes" (p. 18).

Evaluation is not the last phase of the 5E cycle; on the contrary, it is a new way of thinking, a place where writing and self-reflection by teachers merge as an ethical practice.

The 5E teaching cycle proposes a framework for thinking with IAGen, without neglecting the essence of being human. Each of the phases described invites teachers and students to foster their cognitive autonomy and, in turn, challenges the scope of technology to enhance the soft skills that underpin the ability to learn how to learn.

From this point on, we delve deeper into the Elaborate phase, which serves as the axis that articulates reflective teaching and integrates the ethics of using IAGen in the development of soft skills.

Elaborate: apply, create, and transform.

As explained above, *Elaborate* is the central axis of the 5E learning model. This phase is where knowledge transcends and is resized: it is expanded, applied, and transformed to connect prior knowledge with novel situations and challenges. According to this stage, students consolidate what they have learned and test it in authentic contexts (Bybee, 2015).

In higher education, *Elaborate* marks the transition from theoretical knowledge to reflective action. At this stage of the cycle, IAGen emerges as a mediation tool that enhances more complex writing, design, and communication processes, provided that its integration is based on a solid ethical and pedagogical framework.

When the 5E model is adapted for digital tools, the elaboration phase fosters creativity, autonomy, and innovation (Bastida-Bastida, 2019, p. 75). These characteristics are consistent with the soft skills identified as essential in digital literacy and IAGen ethics: critical thinking, empathy, self-regulation, and responsibility (UNESCO, 2024; Chan, 2023).

Elaborate seeks to restructure thinking, which modifies the relationship between people and the technological tool. In this context, Pamela's situation takes on new meaning. What began

as dependence on IAGen becomes an opportunity to rebuild authorship, recognize the limits of the tool, and cultivate her own voice.

Elaborate with human meaning

Developing with human meaning means understanding that artificial intelligence does not replace experience or understanding, but instead expands and strengthens them when used thoughtfully. The purpose is to enable students to use knowledge meaningfully in different contexts (Bybee, 2015). From this perspective, IAGen is incorporated as a cognitive intermediary that can expand the capacity for analysis and expression, but thinking is intrinsically human.

Selwyn (2024) warns that one current risk is the "uncritical delegation of writing and reasoning to automated systems" (p. 4). To elaborate with human meaning is to restore learning's ethical dimension, its narrative, and its emotion: that the text is not an empty mirror, but quite the opposite, an expression of the subjective and unique experience of the human being.

One option in teaching practice is to allow students to analyze a text generated by AI and reinterpret it from a personal perspective, adding nuances, examples, or analogies from their own experience or creativity. This action develops cognitive empathy, which is the ability to understand others' intentions and transform them into meaningful understanding.

Ethical elaboration

Ethical elaboration is conceived as the IAGen not replacing reflection, but rather provoking it. This allows for strengthening self-regulation and academic honesty, and for developing soft skills for responsible digital citizenship. Ethics becomes a daily and situated practice, not a slogan to be followed abstractly. To apply ethical elaboration, for example, students can be asked to compare two texts, one of their own and one generated by AI, in order to discuss the differences in style, argumentation, tone, and conceptual and contextual depth.

The use of AIGen in higher education requires an explicit ethical commitment. AIGen literacy must include an understanding of principles such as transparency, traceability, and respect for authorship. Ethical writing involves teaching students to declare their use of generative tools, cite correctly, and reflect on their role as co-authors (*UNESCO*, 2024).

Chan (2023) insists that the ethics of IAGen use cannot be reduced to institutional policies, but must be part of the educational process: learning to decide when, how, and for what purpose technology is used.

Collaborative production

According to the 5E model, the elaboration phase encourages collaboration and meaningful communication. Learning is consolidated when it is shared, discussed, and reconstructed collectively (Bybee, 2015, p. 103).

IAGen, used with pedagogical intent, can become an ally in enhancing this dimension. Building on shared meaning and recognizing human contribution as technological mediation are important for developing skills such as assertive communication, empathy, and conflict resolution. According to systematic reviews, collaborative applications of IAGen, such as digital co-writing or group idea generation, facilitate the integration of different perspectives and visions, including cognitive styles. IAGen acts as a catalyst for co-creation and reflective, collaborative work, enabling each member to analyze, correct, and improve a standard product with automated support (Garzón et al., 2025; Marzano, 2025).

Returning to Pamela's case, her situation could be transformed if, from the outset, work in pairs or groups were established in which IAGen is used as a starting point for discussion rather than a substitute for human thought. In this way, human interaction returns to the center of learning.

Elaborate to evaluate

Developing also involves evaluating: not in terms of grading, but in terms of metacognition and continuous improvement. Evaluation within the 5E model should be a natural part of the learning process, where students reflect on their own progress (Bybee, 2015, p. 112).

To apply this principle in the methodological strategies mediated by IAGen, formative and reflective assessment is an important part of its development, including learning logs, critical files, and personal improvement plans. These tools can be used to monitor student progress and provide effective feedback. IAGen can support this process by generating automatic observations on the coherence of texts or the diversity of arguments. However, interpretation and empathetic feedback are tasks that cannot be replaced by teachers (Bastida-Bastida, 2019).

Suppose Pamela's teacher had implemented this phase. In that case, the student might have reflected on her dependence on IAGen, understanding that the value of the article lies in her ability to think and not just to produce. In this way, assessment becomes ethical and self-critical learning, integrating IAGen into education without dehumanizing the cognitive process (UNESCO, 2024).

Table 3.1. Relationship between phases of the 5E model, soft skills, and integration with generative AI

Phase of the 5E model	Cognitive-pedagogical purpose	Soft skills involved	Possible integration with GAI
Engage	Activate prior knowledge, spark curiosity	Critical thinking, intrinsic motivation	Initial dilemmas or prompts that provoke reflection on IAGen
Explore	Inquire and discover through interaction	Curiosity, autonomy, cognitive openness	Compare AI/human responses, detect biases or errors
Explain	Communicate and organize knowledge	Communication, empathy, logical reasoning	Argue with the support of AIGen, develop verified explanations.
Elaborate	Apply, create, and transfer knowledge	Creativity, ethics, teamwork	Design projects or essays co-authored by IAGen and humans, citing responsibly
Evaluate	Reflect on and self-regulate learning	Self-criticism, responsibility, self-regulation	Metacognitive logs, empathetic feedback assisted by IAGen

Adapted from Bybee (2015), Bastida-Bastida (2019), and UNESCO (2024).

CONCLUSION

Elaborate represents the convergence point where pedagogy and technology transform into action, driving change in the work of teachers and students. Artificial intelligence ceases to be a tool for mechanical production and becomes a means of reflective authorship, intrinsically linked to ethics and deep learning.

Teaching is much more than presenting content; it is offering structured opportunities to learn how to think. (Bybee, 2015, p. 120). Following this premise, the 5E model and IAGen literacy share a common goal: to train competent individuals to learn autonomously, ethically,

and humanely in a digitally symbiotic world.

Towards a pedagogy of reflective authorship

The 5E model is the backbone of this chapter; it is the epistemological and pedagogical framework for rethinking teaching in the age of generative artificial intelligence. Far from being a mechanical sequence, each phase is elevated to a structure of intellectual resistance whose highest priority is critical thinking, meaningful experiences, and metacognitive reflection, ensuring that the center of pedagogical action remains the human being in the teaching-learning process.

Faced with the danger that education at its different levels will passively adapt to AIGen systems (Selwyn, 2024), the 5E model seeks to move from technological fascination and enchantment to conscious authorship. This pedagogical journey, illustrated by the evolution of Pamela's case, transforms dependence into opportunities to rethink the student's actions, to recognize the limitations of generative tools, and to enable her to develop her own voice in relation to them.

The meaningful integration of AIGen, according to UNESCO (2024) and Bastida (2019), requires enhanced reflective teaching, an approach in which technology serves as a mediator to strengthen creativity, ethics, and collaborative work. It is the teacher, as a cognitive and ethical architect, who establishes learning contexts where elaboration and evaluation become acts of liberation.

Ultimately, planning to think with IAGen requires designing environments of critical interdependence in which rejection is not an option. However, neither is dependence, nor is it a conscious relationship with technology.

Knowledge culminates in transformative actions that uphold ethical standards and foster meaningful learning. The 5E model is not linear and closed. However, it is a process of continuous growth, expanding in a spiral and reaffirming education as a permanent act of humanity, where intelligence is measured by the depth of reflection rather than the speed of response.

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USE OF ARTIFICIAL INTELLIGENCE

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following specific purposes:

1. Translation into Spanish of academic literature originally written in other languages.
2. Translation into English to generate the English translation of the chapter title, abstract, and keywords.
3. To assist in the search for synonyms and synthesis during the planning phase.
4. To evaluate the internal consistency, spelling, punctuation, grammatical uniformity, style, and syntax of the manuscript.

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