
From Automation to Reflection: Exploring Algerian EFL Teachers' Perceptions of AI-Enhanced Creativity in Language Teaching

Saida Tobbi*

* Batna 2 University, 53, Constantine Road, Fesdis, Batna, 05078, Algeria, s.tobbi@univ-batna2.dz
(*corresponding author)

Abstract

This study examines Algerian university EFL teachers' perceptions of artificial intelligence (AI) and its impact on creativity in language teaching. Grounded in Vygotsky's sociocultural theory, the Technological Pedagogical Content Knowledge (TPACK) framework, and Self-Determination Theory (SDT), it explores how teachers conceptualize AI not merely as a tool but as a mediational partner in creative pedagogy. Using a qualitative phenomenological design, data were collected through semi-structured interviews with 19 teachers from the English Department of Batna 2 University. Findings reveal that AI is perceived both as a catalyst for creativity and a threat to authenticity and learner autonomy. Three themes emerged: AI as a cognitive scaffold, ethical and motivational challenges, and teacher mediation as the core of AI-enhanced creativity. The study concludes that AI's creative potential depends on teachers' digital literacy, contextual adaptation, and reflective practice, contributing new insights into human-AI collaboration in under-researched EFL contexts such as Algeria.

Keywords: Algerian EFL teaching; artificial intelligence; creativity; reflective pedagogy; human-AI collaboration; teacher perceptions.

1. Introduction

In Algerian higher education, the integration of technology into EFL instruction has become a strategic priority within the Ministry of Higher Education and Scientific Research's digital transformation agenda. At Batna 2 University, English language teachers increasingly rely on AI tools such as Grammarly, ChatGPT, and automated feedback platforms to support their pedagogical work. However, while these technologies are gaining visibility, their classroom integration remains uneven, and their creative potential is still poorly theorized and empirically explored.

Creativity—long regarded as a cornerstone of effective language education (Guilford, 1950; Vygotsky, 1978)—requires learners to generate new ideas, take expressive risks, and engage in authentic communication. For the purposes of this paper, *creativity* is understood in two complementary senses. First, as learner output: observable instances of novel and meaningful language production (for example, original sentences, metaphors, improvised dialogues, or extended storylines) that demonstrate originality, flexibility, or elaboration beyond routine responses. Second, as teacher task design: the intentional design of prompts, constraints, or

activities that create opportunities for such original language (for example, open-ended prompts, divergent tasks, or revision activities that invite multiple solutions). Throughout the paper the term creativity is used to refer to either or both of these interrelated dimensions, depending on the context.

In AI-mediated classrooms, this creative process acquires new dimensions. On one hand, intelligent systems can enhance creative engagement by offering instant feedback, individualized prompts, and opportunities for linguistic experimentation. On the other hand, uncritical reliance on AI may promote conformity by privileging standardized forms and discouraging imaginative deviation.

Globally, teachers and policymakers are grappling with the question of how to harness AI's affordances without eroding the human essence of creativity. In many developing contexts, including Algeria, this tension is magnified by limited infrastructure, inconsistent digital literacy, and exam-oriented pedagogical traditions. Understanding how teachers navigate this tension is therefore crucial for designing reflective, ethically grounded, and creativity-oriented approaches to AI integration.

Against this backdrop, the present study explores how Algerian EFL university teachers perceive the role of AI in stimulating or constraining creativity in language teaching. It seeks to uncover whether AI is viewed primarily as a tool of automation or as a catalyst for reflection and innovation. By situating the inquiry at Batna 2 University—a context characterized by resource constraints, gradual technological adoption, and rich linguistic diversity—the research provides an under-represented Global South perspective on the intersection between AI, creativity, and pedagogy. The study ultimately aims to contribute to international discussions on human–AI collaboration in education by foregrounding teacher agency and reflective mediation as central to creative practice.

2. Literature Review

2.1. Reframing Creativity in EFL Pedagogy

Creativity has increasingly been recognized as a core element of effective English language teaching and learning. Beyond grammatical accuracy or lexical range, creativity in EFL education reflects learners' ability to generate novel ideas, express personal meaning, and use language as a tool for authentic communication and identity construction (Richards, 2013; Al-Raimi et al., 2024). Scholars emphasize that creative thinking in language classrooms involves divergent production, aesthetic sensibility, and social imagination (Sternberg & Williams, 1996; Beghetto & Kaufman, 2014). It encourages learners to engage in linguistic

risk-taking—experimenting with structures, metaphors, and perspectives that extend beyond textbook norms.

In the EFL context, creativity is also deeply sociocultural. Vygotsky (1978) viewed imaginative activity as a socially mediated process rooted in interaction and cultural tools. In language classrooms, these tools include discourse models, communicative tasks, and—today—digital technologies such as AI. Thus, creativity is not a mysterious gift but a situated competence that can be nurtured through purposeful pedagogical mediation (Muslimin, 2024).

Despite its importance, creativity remains underemphasized in many EFL curricula, particularly in exam-oriented systems like Algeria's, where assessment focuses on accuracy and memorization (Kaid, 2024). Algerian scholars have long pointed to barriers such as overcrowded classrooms, limited exposure to authentic materials, rigid syllabi, and insufficient training in creative methodologies (Sebbah, 2025). These constraints have left teachers struggling to reconcile innovation with institutional accountability. As a result, recent debates have shifted from asking whether teachers should promote creativity to exploring how creativity can be fostered through technological mediation—especially AI tools that scaffold imaginative engagement in new ways.

2.2. AI as a Mediator of Creativity in Language Education

AI has transformed language pedagogy, evolving from simple grammar checkers to multimodal generative systems capable of simulating dialogue, providing contextualized feedback, and producing creative content such as essays, poems, and story outlines (Huang et al., 2022; Li & Chen, 2024). In pedagogical terms, these affordances position AI as a creative mediator—a tool that not only facilitates learning but co-constructs the conditions under which creative thought occurs (Holmes et al., 2019; Lin & Chen, 2024).

A growing body of research highlights AI's potential to enhance linguistic creativity. Lin and Chen (2024) found that AI-integrated writing platforms improved university students' originality, flexibility, and self-expression by enabling iterative experimentation. Guo et al. (2022) showed that chatbots supported EFL learners' creative argumentation by providing adaptive prompts and real-time feedback. Similarly, Wang et al. (2024) demonstrated that AI-supported dialogue systems increased creative fluency by exposing learners to unexpected lexical and syntactic variations that encouraged divergent thinking.

However, scholars also warn that AI's creative potential depends on critical mediation. When used unreflectively, AI may homogenize expression by privileging standard patterns and suppressing originality (Ma, 2024, Alzubi et al., 2025). Automated feedback systems often

reward conformity and penalize deviation, reinforcing algorithmic correctness over creative exploration (Wang & Petrina, 2013). Researchers such as Dai (2023) and Ng (2024) caution that without human guidance, AI-generated outputs risk fostering dependency and diminishing learners' creative agency. The pedagogical challenge, therefore, lies in balancing AI's generative power with teacher-led reflection that encourages learners to personalize and reinterpret machine-generated ideas.

From a theoretical perspective, this dynamic resonates with Vygotsky's (1978) view of tool-mediated learning. AI can extend learners' zones of proximal development by providing scaffolds that support creative performance beyond current ability, yet genuine creativity arises only when learners internalize and transform these digital mediations into personal expression. Consequently, the teacher's role shifts from instructor to creative mediator, orchestrating interactions between human and artificial intelligence.

2.3. AI-Mediated Creativity in the EFL Context: Global and Local Perspectives

Within English language teaching, AI-mediated creativity has become an emergent field of inquiry. Internationally, Li (2024) demonstrated that generative AI tools such as ChatGPT stimulated students' creative writing by providing diverse stylistic models and contextual suggestions that encouraged risk-taking. Yet, the same study warned that excessive reliance on AI could erode learners' originality and self-assessment skills. In Japan, Hirai and Saito (2023) found that AI-powered digital storytelling platforms enhanced students' narrative creativity and multimodal expression when accompanied by reflective debriefing sessions. Similarly, in South Korea, Choi (2024) observed that AI-based brainstorming tools improved idea fluency and reduced anxiety in collaborative EFL writing tasks.

In developing contexts, the debate often centers on whether AI can compensate for systemic resource shortages and stimulate creative engagement despite infrastructural limitations. Studies in Iran, Egypt, and Saudi Arabia suggest that teachers perceive AI as a potential "equalizer" that offers students individualized creative support when teacher feedback is limited (Hajilari, 2021). However, these benefits depend heavily on teachers' digital literacy, ethical awareness, and pedagogical design skills—factors often underdeveloped in resource-constrained systems (Alharbi, 2024).

In Algeria, research on AI in EFL education remains nascent but growing. Benguedda and Kaid (2024) reported that university teachers appreciated ChatGPT's capacity to stimulate idea generation and stylistic variation in writing tasks, yet they expressed concern that students might substitute AI output for their own creative thinking. Özkan et al. (2024) found

that instructors used AI-generated texts as prompts for creative discussion rather than finished products, framing AI as a springboard for classroom ideation. Likewise, Abubaker et al. (2025) demonstrated that AI-assisted writing activities improved students' creative performance when teachers scaffolded reflection and adaptation. Collectively, these studies portray a double-edged perception: AI can amplify or diminish creativity depending on how teachers mediate its use. This ambivalence underscores the need for context-sensitive research into how Algerian EFL teachers conceptualize AI as a creativity-enhancing pedagogical tool.

2.4. Conceptualizing AI-Mediated Creativity

Synthesizing the literature suggests that AI-mediated creativity involves a dynamic interaction between human imagination and algorithmic affordance. It is not simply the outcome of tool use, but a relational process shaped by pedagogical intent (Abubaker et al., 2025). Scholars increasingly view creativity as augmented rather than automated—emerging through reciprocal human–AI interaction, where learners explore, reflect, and reconstruct meaning (Holmes et al., 2019; Lin & Chen, 2024).

Three dimensions appear crucial for sustaining AI-mediated creativity in EFL education:

- Cognitive dimension: AI can act as a creative scaffold that supports ideation, problem-solving, and linguistic experimentation by providing immediate examples, analogies, or rephrasings.
- Affective–motivational dimension: Through personalization and feedback, AI can enhance learners' sense of autonomy and competence—psychological conditions central to creative engagement (Deci & Ryan, 2000).
- Sociocultural–ethical dimension: Teachers and learners must critically negotiate the cultural and moral implications of AI-generated content to preserve authenticity and authorship in creative expression.

Together, these dimensions suggest that creativity in AI-mediated EFL contexts is co-constructed through the interplay of human agency, technological affordance, and sociocultural mediation. The teacher's role thus becomes pivotal—not as a passive user but as a reflective designer who aligns AI tools with linguistic goals, cultural relevance, and creative purpose.

While international studies have examined the cognitive and affective benefits of AI in language learning, little is known about how teachers in the Global South interpret and enact AI's creative potential within constrained environments. In Algeria, where digital

infrastructure, policy, and pedagogical training remain uneven, understanding teachers' perceptions is critical to designing sustainable, creativity-oriented AI integration. The present study, therefore, seeks to answer the following research questions:

- How do Algerian EFL university teachers perceive the role of AI in enhancing or constraining creativity in English language teaching?
- What opportunities and challenges do they identify in using AI to stimulate creative engagement among students?
- How do their experiences reflect broader sociocultural realities shaping AI adoption in Algerian higher education?

Through these questions, the study positions AI not merely as a technological innovation but as a mediational instrument capable of reshaping how teachers and learners co-construct creative meaning in the EFL classroom.

3. Theoretical Frameworks

To interpret how AI mediates creativity in EFL contexts, this study adopts an integrated theoretical framework that combines sociocultural, technological, and motivational perspectives. Together, Vygotsky's (1978) sociocultural theory, Mishra and Koehler's (2006) TPACK model, and Deci and Ryan's (2000) SDT offer a multidimensional lens for understanding how human and artificial intelligence co-construct creative learning experiences.

3.1. Sociocultural Mediation and Creative Co-Construction

From a Vygotskian perspective, creativity develops through social interaction and tool-mediated activity. AI applications—ranging from conversational agents to generative text models—serve as contemporary mediational tools that extend learners' cognitive and linguistic capacities. Through interaction with AI, learners operate within an expanded zone of proximal development (ZPD), engaging in dialogue that prompts idea formation, self-correction, and linguistic play.

However, Vygotsky's theory also reminds us that mediation alone does not guarantee creativity. The creative outcome depends on how teachers frame and transform AI feedback into opportunities for reflection and self-expression. In Algerian classrooms, where technological infrastructure and pedagogical resources are often limited, AI can function as a creative amplifier only when guided by informed instructional support. The teacher thus plays

a pivotal role as a mediator who interprets, contextualizes, and humanizes AI-generated stimuli to ensure that technology expands rather than constrains creative thought.

3.2. Technological–Pedagogical Knowledge and Creative Design

The TPACK framework (Mishra & Koehler, 2006) elucidates the intersection between teachers' technological knowledge (TK), pedagogical knowledge (PK), and content knowledge (CK). In this study, TPACK provides a practical lens for analyzing how teachers design creative tasks that integrate AI tools meaningfully into EFL pedagogy.

In Algerian higher education, EFL teachers often possess strong linguistic expertise but limited technological training. Their ability to use AI creatively depends on developing AI–Pedagogical Content Knowledge (AI-PCK): the capacity to align AI's affordances with linguistic and creative objectives. Teachers with robust TPACK knowledge can transform AI into a creative facilitator by designing tasks such as AI-assisted storytelling, reflective rewriting, or dialogue generation.

Importantly, TPACK also reframes creativity as a design-oriented competence. Creativity does not reside in the tool itself but in the teacher's ability to orchestrate technology purposefully, ethically, and contextually. By mastering the dynamic interplay between pedagogy, content, and technology, teachers can turn AI into an ally for fostering learner autonomy and imagination rather than a mere corrective instrument.

3.3. Motivation and Creative Engagement: A Self-Determination Perspective

According to SDT (Deci & Ryan, 2000), creativity flourishes when learners experience autonomy, competence, and relatedness—three basic psychological needs essential for intrinsic motivation. AI-mediated environments can satisfy these needs by allowing students to explore content independently (autonomy), receive individualized feedback (competence), and engage in authentic, communicative interaction (relatedness).

However, the same technological mediation can undermine motivation if used uncritically. When learners become dependent on AI-generated feedback or prioritize correctness over expression, their sense of agency and ownership diminishes. Teachers, therefore, play a crucial role in framing AI use as a collaborative partnership rather than a substitution for human creativity. By fostering reflective dialogue and ethical awareness, educators can help students maintain authorship and intrinsic motivation while benefiting from AI's support.

Drawing these three perspectives together allows for a more complete understanding of how creativity can emerge in AI-mediated EFL classrooms. Vygotsky's sociocultural theory

reminds us that creative development is always a mediated social process—one that takes shape through interaction with cultural tools such as language and, increasingly, technology. From this viewpoint, AI becomes a symbolic and cognitive tool that can extend learners' participation in creative meaning-making when guided by sensitive mediation.

The TPACK framework adds a pedagogical layer to this understanding. It helps explain how teachers' ability to combine content, pedagogy, and technology determines whether AI functions as a genuine resource for creativity or merely as a corrective device. Teachers who approach AI through an integrated TPACK lens are better positioned to design contextually relevant and creatively open classroom experiences.

At the same time, the motivational principles of SDT highlight the human dimension of creative learning. Even the most sophisticated AI tools cannot inspire creativity unless learners feel autonomous, competent, and connected. Teachers' reflective mediation—how they frame AI use, encourage exploration, and value originality—can either enhance or undermine these motivational conditions.

In this study, these three frameworks intersect around a central idea: creativity arises when human agency, technological affordance, and pedagogical purpose meet in reflective balance. The integration of these theories thus provides a lens through which to interpret Algerian EFL teachers' perceptions—not as isolated opinions about technology, but as expressions of deeper pedagogical and motivational beliefs shaped by sociocultural realities.

4. Methodology

This study used an experiential interview design with a phenomenological orientation and analysed the data using reflexive thematic analysis (RTA) following Braun and Clarke (2019). Put more plainly, the study sought to foreground participants' experiences and meanings (a phenomenological orientation) while using RTA as the analytic method to construct richly textured themes from their accounts. To avoid essentialising language, the manuscript avoids claims about extracting an immutable “essence” of experience; instead, RTA was used reflexively to interpret patterns of meaning and variation across participants. Reflexive analytic decisions (coding memos, theme development notes) are documented in the audit trail (Appendix B).

Although the study's aim is phenomenological, analysis followed Braun & Clarke's (2019) reflexive thematic analysis (RTA) as an analytic method compatible with descriptive phenomenology when the goal is to construct richly textured themes from participants' accounts. In practice, the study combined a phenomenological stance with the iterative,

reflexive, and semantic/latent coding flexibility of RTA. This approach enabled us to foreground participants' subjective meanings while using an inductive coding process to generate themes that capture both individual essences and shared patterns. Reflexive decisions (coding notes, codebook drafts, and theme development memos) are recorded in the audit trail (Appendix B).

4.1. Researcher's Role and Positionality

In qualitative inquiry, the researcher plays a central interpretive role. The present researcher is an EFL teacher with more than twelve years of experience in Algerian higher education. This background provided an insider's understanding of local pedagogical realities, institutional challenges, and evolving attitudes toward technology.

To minimize potential bias, reflexive strategies were adopted throughout the research process. Prior assumptions about AI's pedagogical value were documented in a reflexive journal, and interpretive decisions were revisited in light of emerging data. The researcher maintained a stance of empathetic neutrality—remaining attentive to participants' voices while avoiding premature interpretation (Braun & Clarke, 2019). Member checking and peer debriefing further enhanced credibility and confirmability (Lincoln & Guba, 1985).

This reflexive orientation positioned the researcher as a participant observer—professionally familiar with the context yet analytically distanced enough to interpret teachers' experiences critically.

4.2. Participants and Sampling

Nineteen EFL university teachers from Batna 2 University participated in the study. Participants were recruited using purposive sampling aimed at selecting teachers with direct experience or clear interest in using AI tools in EFL instruction. Recruitment began with departmental email announcements and direct invitations to teachers known to have used AI tools; additional participants were identified via snowballing among colleagues. Purposive sampling was chosen to ensure information-rich cases for a phenomenological inquiry focused on lived experience rather than population estimates. The sample included a range of ages (28–55 years), teaching experience (5–25 years), and academic ranks (assistant, lecturer, associate professor). Gender representation was nearly balanced: ten female and nine male participants ($n = 19$). All participants reported at least some familiarity with AI tools (e.g., ChatGPT, Grammarly, QuillBot), with varying levels of frequency and depth of use (see Table 1 for detailed participant characteristics).

Recruitment continued until no new meaningful experiential patterns relevant to the research questions were observed across successive interviews. Practically, we accepted 19 interviews as sufficient because additional interviews produced primarily confirmatory details rather than new experiential essences; this approach is consistent with purposive/saturation logic for phenomenological and reflexive thematic research (Guest et al., 2006; Braun & Clarke, 2019).

Table 1. Participant characteristics

ID	Gender	Role / Rank	Years teaching	AI familiarity (self-rated)	Typical use
P01	F	Lecturer	12	Moderate	Uses ChatGPT for idea prompts
P02	M	Assistant	6	Low	Uses Grammarly occasionally
P03	F	Associate Prof.	20	High	Designs AI-based prompts for projects
P04	M	Lecturer	8	Moderate	Uses AI for brainstorming
P05	F	Lecturer	10	Low	Occasional use for translation checks
P06	M	Assistant	5	Moderate	Uses chatbot for practice dialogues
P07	F	Lecturer	14	High	Integrates ChatGPT in writing activities
P08	M	Lecturer	9	Moderate	Uses AI to model writing styles
P09	F	Lecturer	11	Moderate	Uses AI for peer review prompts
P10	M	Associate Prof.	25	High	Research on AI in EFL
P11	F	Assistant	7	Low	Limited ad hoc use
P12	M	Lecturer	13	Moderate	Uses AI for exam item generation
P13	F	Lecturer	9	Moderate	Encourages students to critique AI outputs
P14	M	Lecturer	15	Moderate	Tests AI in debate preparation
P15	F	Assistant	5	Low	Learns about AI usage
P16	M	Lecturer	16	Moderate	Uses AI for syllabus examples
P17	F	Lecturer	10	High	Creative tasks with AI prompts
P18	M	Assistant	6	Low	Occasional grammar checks
P19	F	Lecturer	11	Moderate	Combines AI prompts with group work

4.3. Data Collection

Data were collected via semi-structured, in-person interviews conducted in May 2025. The protocol comprised 12 core questions with follow-up probes designed to elicit concrete examples, contextual detail, and temporal change. A typical interview opened with demographic questions (≈ 5 minutes), then progressed to general perceptions of AI (≈ 10 – 15 minutes), specific classroom practices (≈ 10 – 15 minutes), and reflective probes about creativity, authenticity, and ethical concerns (≈ 10 – 15 minutes); interviews lasted 30–45 minutes in total. The full interview guide is provided in Appendix A.

Although participants were generally proficient in English, conducting interviews in a non-native language may have constrained some participants' ability to express fine-grained or

idiomatic meanings. To reduce this risk, the interviewer used follow-up probes and paraphrase checks. Member-checking and reflexive journaling were also used to verify that the interviewer's interpretations captured participants' intended meanings. We nonetheless acknowledge the language-of-interview as a limitation.

4.4. Data Analysis

Data were transcribed verbatim and analyzed following Braun and Clarke's (2019) RTA in an iterative six-phase process (familiarization, initial coding, searching for themes, reviewing themes, defining/naming themes, and producing the report). Coding was primarily inductive, with codes derived from participants' language and elaborated through reflexive memoing. To increase transparency, an audit trail was maintained, containing (a) raw transcripts, (b) initial open codes (first-cycle codes), (c) code consolidation memos, (d) iterative theme maps, and (e) reflexive journaling notes documenting analytic decisions. An excerpt from the codebook and a short example are provided below:

- Transcript excerpt (P07): "If I let them just copy, it kills their imagination. But when I ask them to improve or disagree with the AI text, that's when the creativity starts."
- Initial codes (open coding): *dependence on AI, creativity as revision, teacher prompts for critique.*
- Consolidated code: *teacher-mediated critical adaptation.*
- Theme mapped to: Teacher mediation as the core of AI-enhanced creativity (Theme 3).

The study's working definition of creativity (learner output vs teacher task design) guided both the interview probes and the analytic coding. During data collection interview prompts explicitly asked participants whether their comments about "creativity" referred to student products, task design, or both. During analysis each excerpt coded as relating to creativity was assigned a sub-code indicating whether it concerned (a) creative output (examples/behaviors produced by learners), (b) creative task/design (teacher moves, prompts, or constraints intended to elicit originality), or (c) both. Inclusion/exclusion criteria and exemplar quotes for these sub-codes appear in the codebook (see Appendix B/audit trail). These sub-codes facilitated transparent mapping from participants' accounts to analytic themes while preserving the distinction between output and design in interpretive claims.

4.5. Ethical Considerations

Participants were fully informed about the study's aims, confidentiality, and their right to withdraw at any point. Pseudonyms were used in transcripts and reporting to preserve anonymity. The study adhered to the ethical principles of respect, transparency, and beneficence.

5. Results

The thematic analysis of the interview data revealed three major themes reflecting Algerian EFL teachers' perceptions of AI and its influence on creativity in language teaching: 1. AI as a cognitive and creative scaffold, 2. Ethical and motivational tensions in AI use, and 3. Teacher mediation as the key to AI-enhanced creativity. Together, these themes portray a nuanced understanding of AI: it is seen neither as a revolutionary solution nor a passive tool, but as a mediated partner whose creative value depends on how teachers guide, interpret, and contextualize its use. For transparency, each theme is reported with an approximate prevalence (number of participants who referred to that idea during interviews): Theme 1 — *AI as a cognitive and creative scaffold* ($\approx 15/19$ participants); Theme 2 — *Ethical and motivational tensions* ($\approx 12/19$ participants); Theme 3 — *Teacher mediation as the core of AI-enhanced creativity* ($\approx 17/19$ participants). These counts are presented as indicators of pattern strength rather than as inferential statistics, consistent with reflexive thematic practice (Braun & Clarke, 2019). Participant IDs (P01–P19) correspond to the anonymized identifiers in Table 1.

5.1. AI as a Cognitive and Creative Scaffold

Most teachers described AI as a helpful cognitive partner that encourages both teachers and students to think more imaginatively about language use. They commonly mentioned tools such as ChatGPT, Grammarly, and QuillBot to model writing, generate ideas, and stimulate creative thinking. Many characterized these tools as “a spark” that helps students overcome hesitation and explore new linguistic forms. One teacher explained: “Sometimes my students feel blocked when I ask them to write creatively. When they use AI to get ideas, it's like the fear disappears — they start experimenting with vocabulary and sentence structures they never tried before” (P09). Another remarked: “I tell them AI can show you different ways to express one idea, but it's your job to make it sound human, to make it yours” (P03).

Moreover, several teachers emphasized that creativity only emerged when AI outputs were treated as starting points rather than final answers. They guided students to critique, rewrite, and extend what AI suggested. “If I let them just copy, it kills their imagination. But when I

ask them to improve or disagree with the AI text, that’s when the creativity starts,” noted one lecturer (P07). Teachers reported using classroom discussion and peer review to turn AI-generated text into opportunities for genuine authorship: “We use ChatGPT like a silent partner in class — it gives ideas, and then we discuss which ones make sense in our cultural and linguistic context” (P12). From a sociocultural perspective, these accounts suggest that AI functions as a mediational tool that can expand learners’ zone of proximal development; yet the creative outcome depends on how teachers design the learning environment and prompt reflection on the machine’s suggestions.

A contrasting perspective came from a less AI-familiar participant who questioned the scaffold claim: “AI gives many options but sometimes it confuses students more than it helps; they copy but then are unsure which version is better” (P02). This deviant account highlights that without teacher scaffolding or sufficient user familiarity, AI can increase uncertainty rather than support creative risk-taking.

5.2. Ethical and Motivational Tensions

A recurring theme concerned ethical and motivational tensions: teachers frequently voiced worries about authorship, plagiarism, and diminished student effort alongside recognition of pedagogical affordances. For many, the central ethical problem was not the technology per se but how it was used. One participant stated, “My students can get a near-finished paragraph from the chatbot; the worry is whether they learn to think for themselves” (P04). Another emphasized the pedagogical response: “We must teach students how to use AI ethically — otherwise it becomes a shortcut, not a learning tool” (P13).

Participants linked motivational risks to task design and accountability: when tasks were exam-oriented or poorly scaffolded, teachers reported an increased tendency for students to rely on AI to produce polished work without engaging in cognitive effort. Conversely, tasks designed to require justification, reflection, or personalized choices reduced the risk of “shortcut” behavior. This pattern shows that ethical concerns and motivation are intertwined with assessment practices and task constraints.

Not all accounts framed the issue as solely moralizing. A more governance-oriented participant argued that institutional responses matter: “I see the plagiarism risk, but I also think policy will solve this; the bigger problem is a lack of reliable detection and teacher training” (P10). This contrasting view foregrounds institutional capacity (policy, detection tools, and professional development) as a central route for managing ethical tensions.

5.3. *Teacher Mediation as the Core of AI-Enhanced Creativity*

Across participants, the decisive factor determining whether AI fostered or inhibited creativity was teacher mediation — how instructors designed tasks, framed AI’s role, and scaffolded critical engagement. Teachers described practices that promoted creativity: specifying constraints that required adaptation, prompting students to critique AI outputs, and designing iterative revision cycles. One lecturer summarized this function: “When I ask students to critique the AI text and then rewrite a piece making deliberate changes, I see genuine originality — they make choices grounded in argument and style” (P17). Another added, “My role is to set constraints and prompts that force students to adapt AI output — that’s where creativity happens” (P12).

Teachers also described assessment and feedback strategies that reinforced mediated use: rubrics emphasizing original contribution, tasks that required personal or culturally situated responses, and classroom rubrics that rewarded substantive revision rather than surface polishing. These design choices were repeatedly linked to reports of more authentic student work.

However, some participants emphasized that mediation is necessary but not always feasible because of contextual constraints. One assistant explained, “I want to mediate, but lack of internet access often prevents me from using AI regularly — so mediation is sometimes aspirational” (P15). This deviant case underscores that even strong pedagogical intent can be limited by infrastructural and institutional barriers.

5.4. *Cross-Theme Observations*

Three cross-cutting patterns tied the themes together. First, the interaction between teacher mediation and contextual conditions (infrastructure, institutional policy, assessment culture) consistently shaped whether AI acted as a scaffold or a shortcut. Second, teachers’ familiarity with AI moderated their perspectives: higher familiarity tended to produce more nuanced, governance-oriented suggestions (policy and pedagogy), whereas lower familiarity often produced polarized views (either enthusiasm about quick gains or concern about dependence). Third, creativity was repeatedly framed as not automatic; rather, it required deliberate task design, assessment alignment, and explicit instruction in critical use of AI.

5.5. *Summary of Findings*

The findings reveal that Algerian EFL teachers hold complex, context-sensitive perspectives on AI’s relationship to creativity. They see AI as a promising tool for stimulating ideas,

feedback, and engagement, but also as a possible threat to authenticity, motivation, and ethical integrity. Ultimately, creativity in AI-mediated classrooms emerges not from the tool itself but from reflective human–AI collaboration. Teachers’ mediation—how they question, contextualize, and reframe AI use—determines whether automation leads to genuine inspiration.

6. Discussion

This study surfaces a context-sensitive ambivalence toward classroom AI: teachers experienced AI both as a cognitive and creative scaffold and as a potential shortcut that undermines effort, and they located the decisive mechanism for beneficial outcomes in teacher mediation. The three themes offer complementary lenses for interpreting how and when AI supports originality in Algerian EFL settings.

Interpreting the themes together suggests a conditional pathway: AI supplies generative affordances (ideas, lexical variants, structural models) that can enable creative work, but the conversion of those affordances into learner originality depends on two interacting mechanisms. The first mechanism is pedagogical mediation—teachers’ task design, prompts, and assessment practices determine whether students treat AI outputs as provisional resources to be adapted or as finished products to be adopted. The second mechanism is motivational framing—tasks and classroom atmosphere that sustains autonomy and competence encourage critical engagement with AI, whereas designs that reward polished outcomes without documented process reduce the incentive to struggle and create. Framing the findings this way moves beyond the descriptive “double-edged” label to specify why those edges exist and what mediates their direction.

These interpretive claims align with international literature that also identifies ambivalence and the centrality of teacher practice. Several studies report a similar “double-edged” character—AI affords idea generation and revision but can encourage shortcut behaviors where mediation is absent—and our thematic pattern echoes this trend (Guo et al.; Lin & Chen, 2024). Our study converges with that literature on the role of teacher design: teachers familiar with the tools described task constraints, justificatory prompts, and rubric-based assessments that channel AI toward pedagogical ends. Compared with many international reports that foreground technological affordances or student reactions, participants here emphasized local boundary conditions—unreliable connectivity, exam-driven assessment cultures, and language ideologies favoring standardization—that shape how teachers operationalize AI. In short, while AI’s potentials and risks are broadly observed, our data add

texture about which material, institutional, and ideological features tip the balance in Algerian settings.

Each theoretical lens used in the study helps explain these convergences and divergences. From a sociocultural perspective (Vygotsky), AI can extend the zone of proximal development when teachers scaffold interaction with the tool; this resonates with classroom work showing mediation as decisive. TPACK explains inter-teacher variation: teachers who implicitly integrate technological, pedagogical, and content knowledge are better able to design tasks that harness AI meaningfully. SDT illuminates the motivational mechanism: autonomy-supportive, competence-building tasks sustain intrinsic engagement with AI, whereas tasks that trivialize effort undermine ownership.

Engaging alternative explanations and negative cases clarifies boundary conditions. Some participants presented AI as inherently creativity-diminishing—an account that our analysis suggests often reflects limited teacher scaffolding, weak student strategy instruction, or task designs that make AI a convenient substitute (P02’s “confuses students” remark). Other participants centered institutional levers, arguing that policy, detection tools, or training would resolve ethical tensions (P10). Our data indicate that policy clarity and detection can shape incentives, but policy by itself cannot substitute for classroom enactment; enacted pedagogy and teacher development are necessary for institutional directives to translate into everyday practice. The infrastructural negative case shows that even motivated, well-prepared teachers can be blocked by access problems. These negative cases corroborate prior research while emphasizing which constraints are most decisive in our sample.

Comparisons with specific prior findings sharpen interpretation. Studies focused on toolkit affordances or student-level outcomes sometimes report immediate gains in fluency or draft quality; our interviews confirm such perceptions but add caution: gains in surface fluency frequently require follow-up pedagogical work to translate into deeper originality. Conversely, research that emphasizes policy responses or detection technologies often presumes functional classroom capacity to implement policy; our findings complicate that assumption by showing variable teacher familiarity and infrastructural readiness. Therefore, where previous work may suggest straightforward policy or technological solutions, our data indicate those solutions must be coupled with teacher-centered design and resource supports to achieve the pedagogical ends claimed.

Given these constraints on inference, implications are intentionally modest and targeted to leverage points evident in the interviews. At the classroom level, teachers should frame AI outputs as provisional and design tasks that require adaptation, justification, and reflexive

commentary so that students exercise evaluative judgment and stylistic choice; such practices operationalize the mediation and motivational mechanisms identified. Assessment logic should foreground process—drafting, rationale, and substantive revision—so incentives align with creative engagement. At the departmental level, professional development should cultivate integrated TPACK, enabling teachers to convert tool affordances into contextually appropriate tasks and assessment. Institutional policy should clarify acceptable and credited AI use while avoiding undifferentiated bans; policies are most effective when paired with teacher resources, practical detection support, and localized pilot implementations that account for infrastructural variation. Finally, infrastructure investment—prioritized and targeted—is a necessary condition for equitable mediation; without reliable access, even the most promising pedagogical designs remain partial in reach.

These recommendations are proportional to what the interview data can support: they identify plausible levers and mechanisms rather than claiming proven causal impacts on learning outcomes. Testing the effectiveness of the suggested interventions requires follow-up work—classroom observation, student-centered outcome measures, mixed-methods interventions, or longitudinal designs—that can validate whether mediation strategies documented here produce measurable gains in creativity. Developing validated instruments for creativity in EFL contexts would also permit comparisons across studies and stronger inference.

The study's negative cases and intra-sample contradictions therefore point directly to a focused research agenda: experimental or quasi-experimental studies can test whether specific mediation strategies causally influence creativity metrics; larger-scale surveys can estimate the prevalence of institutional and infrastructural constraints suggested by our sample; and longitudinal work can document how teacher familiarity and institutional responses evolve as tools and policies change. Attending to these multi-leveled components—classroom practice, professional capacity, institutional incentives, and material infrastructure—will be essential if the field is to move from descriptive reports of ambivalence to evidence-based interventions that reliably enhance creative learning with AI.

This study contributes to the international literature by corroborating widely observed ambivalences around educational AI while adding context-specific detail about the constraints and enablers that determine whether AI functions as a scaffold or a shortcut. By situating teachers' perceptions within sociocultural, TPACK, and SDT-informed accounts, explicitly engaging alternative explanations and negative cases, and tempering implications to match the evidential scope of interview data, the study clarifies where cautious practice can begin and where further empirical work is required.

7. Conclusion and Implications

The study affirms that creativity in language education is socially mediated and context-sensitive. Drawing on Vygotsky's sociocultural theory, AI can be understood as a mediating tool that extends learners' creative potential within the ZPD when accompanied by purposeful human guidance. The TPACK framework clarifies that creative use of AI requires teachers to balance technological skills with pedagogical insight and linguistic expertise. SDT adds a motivational lens, suggesting AI can enhance autonomy and competence if used thoughtfully, but may reduce learners' agency if applied mechanically. Together, these frameworks show that the main challenge is developing reflective and ethical awareness in practice rather than merely adopting the technology.

The results yield several practical recommendations for Algerian universities. Teachers are encouraged to view AI as a scaffold for experimentation, reflection, and collaboration rather than as a corrective shortcut. Integrating AI into project-based learning, digital storytelling, or critical writing tasks can foster imagination while preserving communicative authenticity. Teachers should model responsible use by asking students to critique, adapt, and personalize AI outputs rather than reproduce them.

Teacher training programs should include AI literacy modules addressing pedagogical design and ethical awareness. Workshops can focus on balancing automation with originality, managing authorship issues, and using AI for differentiated instruction in large classes. At the institutional level, universities should strengthen digital infrastructure, clarify policies on AI use that promote academic integrity and data ethics, and provide technical support and pilot initiatives tailored to local conditions. Collaboration among universities, policymakers, and local developers could support the localization of AI tools to ensure cultural and pedagogical relevance.

This study frames AI-mediated creativity as relational: it emerges from the interaction of human agency, technological affordance, and sociocultural setting. The Algerian context adds a non-Western perspective to the global discussion, illustrating how digital innovation intersects with local pedagogical traditions and constraints. The qualitative approach—focused interviews—provided insight into personal, emotional, and contextual dimensions that larger surveys might miss, and generated testable hypotheses for follow-up work.

While the findings of the present study point to promising directions for practice and research, they are necessarily tempered by the study's methodological and contextual limits. The study's findings are drawn from interviews with 19 teachers at a single university;

transferability to other Algerian or international contexts should be made cautiously. All interviews were conducted in English, which may have restricted idiomatic expression and subtle nuance; probes, paraphrase checks, and member-checking helped mitigate this, but future research would benefit from multilingual interviewing, larger multi-site samples, and mixed methods to extend and test these findings.

Overall, AI is neither inherently creative nor inherently restrictive: within Algerian higher education it has the potential to extend rather than replace human imagination when used critically, ethically, and contextually. Realizing that potential requires ongoing reflection, institutional support, and coordinated action across classroom practice, professional development, policy, and infrastructure.

Acknowledgements

The author would like to thank the participants who took part in this study; their insights were invaluable. Regarding the use of AI, Perplexity AI was employed for linguistic proofreading and grammatical refinement of the manuscript. All AI-generated outputs were critically reviewed, revised, and validated by the author, who confirms that the use of AI complies with the ethical guidelines of her institution and those of the *Journal of Applied Technical and Educational Sciences*. The author assumes full responsibility for the final content, interpretation, and conclusions presented in this manuscript.

Ethics statement

This article does not involve any original experimental studies with human or animal subjects. Therefore, no ethical approval was required for this work.

Funding statement

The author received no financial support for the research, authorship, and/or publication of this article.

Declaration of competing interest

The author declares that she has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

Abubaker, N. M., Kashani, S., Alshalwy, A. M., & Garib, A. (2025). Reshaping Higher Education in MENA with Generative AI: A Systematic Review. In J. Boivin, J. Al-Obaidi, & M. Rao (Eds.), *Emerging Technologies Transforming Higher Education: Instructional Design and Student Success* (pp. 231-256). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-3904-6.ch010>

- Alharbi, M. (2024). The role of artificial intelligence in advancing English as a foreign language teaching at Saudi universities. *World Journal on Educational Technology*, 16(3), 181–200. <https://doi.org/10.18844/wjet.v16i3.9311>
- Alzubi, A. A. F., Nazim, M., & Alyami, N. (2025). Do AI-generative tools kill or nurture creativity in EFL teaching and learning? *Education and Information Technologies*, 30(11), 15147–15184. <https://doi.org/10.1007/s10639-025-13409-8>
- Al-Raimi, M., Mudhsh, B. A., Muqaibal, M. H., & Al-Yafaei, Y. (2024). To what extent has artificial intelligence impacted EFL teaching and learning? A systematic review. *Arbitrer: Scientific Journal of Linguistics Society of Indonesia*, 11(3), 399–412. <https://doi.org/10.25077/ar.11.3.399-412.2024>
- Beghetto, R. A., Kaufman, J. C., & Baer, J. (2015). *Teaching for creativity in the Common Core classroom*. Teachers College Press.
- Benguedda, B., & Kaid, F. (2024). Teachers’ perspectives on integrating AI in EFL education: A case study at the University of Algiers 2. *Akofena*, 7(13), 365–374. <https://doi.org/10.48734/akofena.n013.vol.7.29.2024>
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- Craft, A. (2011). *Creativity and education futures: Learning in a digital age*. Trentham Books.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Dai, L. (2023). Artificial intelligence and learner creativity in online English composition. *Journal of Educational Technology and Language Learning*, 17(3), 112–130.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822X05279903>
- Guilford, J. P. (1950). Creativity. *American Psychologist*, 5(9), 444–454.
- Guo, K., Wang, J., & Chu, S. K. W. (2022). Using chatbots to scaffold EFL students’ argumentative writing. *Assessing Writing*, 54. <https://doi.org/10.1016/j.asw.2022.100666>
- Hirai, T., & Saito, M. (2023). Digital storytelling with AI in Japanese EFL contexts: Enhancing narrative creativity. *Language Learning & Technology*, 27(1), 90–108.
- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promise and implications for teaching and learning*. Center for Curriculum Redesign. https://curriculumredesign.org/wp-content/uploads/AI-in-Education-Promise-and-Implications_for_Teaching_and_Learning-WHolmes-MBialik-CFadel.pdf
- Huang, W., Hew, K. F., & Fryer, L. K. (2022). Chatbots for language learning—Are they really useful? A systematic review of chatbot-supported language learning. *Journal of Computer Assisted Learning*, 38(1), 237–257. <https://doi.org/10.1111/jcal.12610>
- Jiang, R. (2022). How does artificial intelligence empower EFL teaching and learning nowadays? A review of artificial intelligence in the EFL context. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1049401>

- Lin, H., & Chen, Q. (2024). Artificial intelligence (AI)-integrated educational applications and college students' creativity and academic emotions: Students' and teachers' perceptions and attitudes. *BMC Psychology*, 12. <https://doi.org/10.1186/s40359-024-01979-0>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.
- Ma, Y. (2024). AI-empowered applications' effects on EFL learners' engagement in the classroom and academic procrastination. *BMC Psychology*, 12. <https://doi.org/10.1186/s40359-024-02248-w>
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054.
- Muslimin, A. I. (2024). Bibliometric analysis of artificial intelligence integration in English as a foreign language education: Trends and patterns. *Journal of English Teaching*, 9(1), 79–92 <https://doi.org/10.36456/jet.v9.n01.2024.8867>
- Ng, W. (2024). AI-assisted learning and creative thinking in higher education: Opportunities and ethical challenges. *Australasian Journal of Educational Technology*, 40(1), 57–74.
- Özkan, E. K., Erdemir, N., & Coşkun, D. (2024). A Systematic Review of EFL Teachers' Perspectives on Artificial Intelligence Technologies. *Ihlara Eğitim Araştırmaları Dergisi*, 9(2), 150-168. <https://doi.org/10.47479/ihead.1535035>
- Richards, J. C. (2013). Creativity in language teaching. *Iranian Journal of Language Teaching Research*, 1(3), 19–43.
- Sebbah, L. (2025). Exploring Algerian EFL students' familiarity, use, and attitudes towards generative artificial intelligence tools in education. *Journal of Languages & Translation*, 5(1), 1–21. <https://doi.org/10.70204/jlt.v5i1.219>
- Sternberg, R. J., & Williams, W. M. (1996). *How to develop student creativity*. Association for Supervision and Curriculum Development (ASCD).
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wang, F., Yuan, Y., & Wang, J. (2024). Does chatting with chatbots improve second language learning? A systematic review and meta-analysis. *Computer Assisted Language Learning*, 37(5–6), 1467–1491.
- Wang, H., Yuan, L., & Wang, Y. (2024). Conversational AI and the development of creativity in English dialogue tasks. *Language Teaching Research*, 28(3), 290–308.
- Wang, Y. F., & Petrina, S. (2013). Using learning analytics to understand the design of an intelligent language tutor – Chatbot Lucy. *International Journal of Advanced Computer Science and Applications*, 4(11), 124–131.

Appendices

Appendix A: The Interview Guide

The interview guide was structured around three broad thematic areas corresponding to the research questions:

1. Teachers' overall perceptions of AI in EFL teaching

- How would you describe your general impressions of AI tools in language teaching?

-
- What do you think AI brings to your classroom that traditional methods do not?
 - Have your views on AI changed over time, and if so, how?

2. Current uses and practices of AI in the classroom

- Can you describe a situation where you used AI to support teaching or learning?
- What kinds of activities or skills do you find most suitable for AI-assisted learning?
- How do your students respond to using AI tools?

3. Attitudes toward AI's influence on students' creativity and original language production

- How do you define 'creativity' in your classroom practice? When you talk about creativity, do you mean (a) the student's output (e.g., original sentences, stories, or other products), (b) the way you design tasks and prompts to elicit such output, or (c) both? Please give an example.
- In your view, does AI stimulate or restrict students' creativity?
- How do you encourage students to use AI critically and creatively rather than dependently?
- Do you see AI as a collaborator, a guide, or a threat to creative learning?

Appendix B: Audit Trail

1. Short chronology

- 2025-05-10: Familiarisation — all transcripts read; margin notes saved.
- 2025-05-13–20: Open coding → OpenCodes_v1.xlsx.
- 2025-05-22: Code consolidation → Codebook_draft1_20250522.docx.
- 2025-05-28: Theme mapping → ThemeMap_20250528.png.
- 2025-06-02: Worked example prepared (P07) → AuditExcerpt_P07_20250602.docx.
- 2025-06-09: Final codebook → Codebook_final_draft_20250609.xlsx.
- 2025-06-12: Reflexive memoing and coding check → ReflexiveMemo_20250612.docx.

2. Compact codebook summary (final consolidated codes; approximate prevalence)

- scaffold_cognitive_partner — AI as idea-generator/low-level solver ($\approx 15/19$).

-
- `teacher_mediation_design` — concrete teacher strategies ($\approx 17/19$).
 - `overreliance/authorship_erosion` — copying/reduced ownership ($\approx 9/19$).
 - `motivational_effects` — autonomy/effort concerns ($\approx 12/19$).
 - `policy_and_detection` — institutional responses ($\approx 7/19$).
 - `infrastructure_access` — connectivity/device limits ($\approx 4/19$).
 - `language_ideology` — norms shaping originality ($\approx 6/19$).

Each code in the final codebook has: definition, inclusion/exclusion criteria, exemplar quote, and guidance for mapping to themes.

Note on operationalisation: In the final codebook, each code entry for creativity includes a sub-code specifying whether the reference concerned (a) learner output, (b) teacher task design, or (c) both. Each sub-code has inclusion/exclusion criteria and exemplar quotes to support transparent mapping from transcript language to analytic labels.

3. Worked example (condensed: P07 excerpt)

Excerpt (anonymized): “If I let them just copy, it kills their imagination. But when I ask them to improve or disagree with the AI text, that's when the creativity starts.”

- Open codes: `copying_behavior`; `creativity_as_revision`; `teacher_prompting`; `authorship_claim`.
- Consolidation: `copying_behavior` + `authorship_claim` → `overreliance/authorship_erosion`. `creativity_as_revision` + `teacher_prompting` → `teacher_mediation_design` (primary) with `scaffold_cognitive_partner` (secondary).
- Theme mapping: Primary → *Teacher mediation as the core of AI-enhanced creativity*; Secondary linkage → *AI as a cognitive and creative scaffold*. (See `AuditExcerpt_P07_20250602.docx` for full audit memo.)

4. Selected theme-development notes (summary)

- Moved from many overlapping first-cycle codes to mechanism-vs-boundary coding axes (mechanisms: teacher action, motivational framing; boundaries: infrastructure, policy, language norms).
- Decided to report approximate prevalence for transparency and to include deviant cases as boundary checks.

- Reflexivity checks: cross-checked coding on a 20% transcript sample and intentionally preserved deviant quotes (e.g., P02, P15) in final reporting.

Codebook note: “Each ‘creativity’ code includes a sub-code for output / design / both, with inclusion/exclusion rules and exemplar quotations