ORIGINALITY IN THE AGE OF GENERATIVE AI: EXAMINING AI-ASSISTED AND HUMAN-GENERATED IDEAS IN EFL WRITING

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Abstract
The article examines the impact of Generative Artificial Intelligence on the originality and structural complexity of idea generation in English as a Foreign Language (EFL) writing. Based on empirical analysis at a national research university, the quantitative and qualitative balances between AI-assisted brainstorming and purely human-generated conceptual designs are investigated.
Keywords: Generative AI, originality, EFL writing, idea generation, learner agency, scaffolding, academic writing, artificial intelligence, linguodidactics, text production.

GENERATIV SUN'IY INTELLEKT DAVRIDA ORIGINALIK: INGLIZ TILINI XORIJIY TIL SIFATIDA O'RGANUVCHILAR REJASIDAGI SUN'IY INTELLEKT VA INSON TOMONIDAN YARATILGAN G'OYALAR TAHLILI

Annotatsiya
Maqolada ingliz tilini xorijiy til sifatida o'rganuvchi (EFL) talabalarning yozma nutqida g'oyalar yaratilishi va o'ziga xosligiga generativ sun'iy intellektning ta'sir ko'rsatishi tadqiq etilgan. Milliy tadqiqot universiteti bazasidagi empirik tahlillar asosida sun'iy intellekt ko'magida shakllangan hamda inson tomonidan yaratilgan konseptual g'oyalar muvozanati o'rganilgan.
Kalit so'zlar: generativ sun'iy intellekt, originallik, EFL yozma nutqi, g'oyalar generatsiyasi, talaba agentligi, skaffolding, akademik yozuv, sun'iy intellekt, lingvodidaktika.

ОРИГИНАЛЬНОСТЬ В ЭПОХУ ГЕНЕРАТИВНОГО ИСКУССТВЕННОГО ИНТЕЛЛЕКТА: АНАЛИЗ ИДЕЙ, СОЗДАННЫХ С ПОМОЩЬЮ ИИ И ЧЕЛОВЕКА, В АКАДЕМИЧЕСКОМ ПИСЬМЕ НА АНГЛИЙСКОМ ЯЗЫКЕ

Аннотация
В статье исследуется влияние генеративного искусственного интеллекта на оригинальность и структурную сложность генерации идей в письменной речи студентов, изучающих английский язык как иностранный. На основе эмпирического анализа в национальном исследовательском университете изучен баланс между идеями ИИ и человека.
Ключевые слова: генеративный ИИ, оригинальность, письмо на английском языке, генерация идей, агентность учащихся, скаффолдинг, академическое письмо, лингводидактика.

Introduction

The emergence of Large Language Models (LLMs) and Generative Artificial Intelligence (AI) platforms, such as ChatGPT, Claude, and Gemini, has initiated a revolutionary transformation across global educational landscapes. Within the domain of second language (L2) acquisition, particularly English as a Foreign Language (EFL) writing, these technological instruments have redefined the

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structural parameters of text composition, grammar refinement, and pre-writing brainstorming. Traditionally, the most cognitively demanding phase of academic writing for EFL students has been the transition from a blank page to a cohesive conceptual outline—a process known as idea generation. Today, AI-powered systems can produce complex thematic concepts, vocabulary clusters, and structural outlines instantaneously, offering unprecedented scaffolding to language learners.

However, this rapid algorithmic integration raises profound pedagogical and linguistic concerns regarding the nature of authenticity, originality, and learner agency in modern academic writing. While Generative AI tools successfully reduce cognitive anxiety and mitigate lexical limitations for L2 writers, they also introduce the danger of conceptual homogenization, where student essays mirror repetitive algorithmic patterns and formulaic text blocks. In an engineering and agricultural research context like TIIAME NRU, where precise technical communication must converge with independent critical thinking, establishing the boundaries of AI deployment is imperative.

It is vital to determine whether AI serves as a cognitive scaffold that stimulates original human thought, or as a replacement that diminishes independent cognitive agency. This study aims to evaluate the qualitative and quantitative parameters of AI-assisted versus purely human-generated ideas in EFL compositions, identifying strategic methodologies to secure learner originality in the machine age.

Materials and Methods

The empirical and theoretical infrastructure of this research leverages a mixed-method pedagogical evaluation, incorporating controlled diagnostic writing samples, blinded peer-and-instructor evaluations, automated textual originality scans (via specialized AI detectors), and comparative statistical verification using the Student's t-test. The integration of advanced educational technology within L2 writing methodologies has been explored from various angles in local and global contexts.

In national linguodidactics, the core parameters of developing autonomous academic literacy and text-production strategies among university students were formulated by J. Jalolov, who focused on balancing grammatical accuracy with creative semantic intent [1, P. 134]. Additionally, the methodologies for cultivating independent learner agency and critical filtering systems within English language tracking at technical higher education institutions have been extensively researched by A. Nurmuhammedov [2, P. 85].

In the international arena, the cognitive phases of the writing process—specifically pre-writing brainstorming and the suppression of the "blank page anxiety"—were structurally modeled by L. Flower and J.R. Hayes [3, P. 367]. More recently, the specific implications of Generative AI on L2 writing pedagogy, including the concepts of "AI as a scaffolding partner" and "algorithmic bias in learner texts," have been critically evaluated by Warschauer et al. and Hyland [4, P. 42; 5, P. 102].

To build on these frameworks, an instructional experiment was conducted over a single academic term at TIIAME NRU, involving 60 intermediate (B2-level) EFL students split into an AI-Assisted brainstorming group and a Traditional Human-Generated concept group [6, P. 14].

Results

To analyze the specific effects of Generative AI on early-stage composition, the Experimental Group was trained to utilize LLM prompts exclusively for pre-writing ideation, structural mapping, and synonym exploration (scaffolding mode). They were strictly instructed to generate raw thematic ideas via AI but write the final essay text independently. The Control Group relied entirely on traditional human-generated techniques, including manual brain-mapping, dictionary searches, and physical peer discussions. The final argumentative essays produced by both cohorts were assessed blindly by two

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independent evaluators using an analytical rubric scored on a 25-point maximum scale across four critical dimensions.

Table 1

Comparative Textual Assessment of Ideation and Composition Quality Between Cohorts (Mean Point Scores, Max: 25 Per Category) [3, P. 372; 6, P. 22]

Evaluative Dimensions	Control Group (Human-Only)	Experimental Group (AI-Assisted)	Performance Deviation (%)	Statistical T-value
Conceptual Diversity (Range of Ideas)	14.8	**21.4**	+44.5%	$t=4.62^{**}$
Structural Cohesion & Organization	16.2	**20.5**	+26.5%	$t=3.18^{**}$
Linguistic Originality (Uniqueness)	**19.5**	15.1	-22.5%	$t=3.45^{**}$
Critical Voice (Learner Agency)	**18.4**	14.6	-20.6%	$t=2.98^{*}$

* Significant at $p \leq 0.05$; ** Highly significant at $p \leq 0.01$.

The empiric values recorded in Table 1 reveal a complex, double-edged relationship between Generative AI usage and L2 text production. On one side, the Experimental Group exhibited a major breakthrough in **Conceptual Diversity**, climbing to a mean of **21.4 points** compared to the Control Group's 14.8 points (t=4.62). This verifies that AI interaction expands the thematic horizon of EFL students, exposing them to unique angles, multi-disciplinary connections, and diverse arguments they would not typically generate manually. **Structural Cohesion** also increased by +26.5%, as the LLM provided logical paragraph blueprints.

On the other side, a distinct regression was observed in the parameters of originality and individual voice. The Control Group maintained a distinct superiority in **Linguistic Originality**, scoring **19.5 points** as opposed to the AI-assisted cohort's 15.1 points (t=3.45). Automated AI detection software also indicated that essays from the experimental track featured a significantly higher density of clichéd transitional expressions ("Furthermore," "In summary," "It is crucial to note") typical of LLM output.

Similarly, **Critical Voice** fell by -20.6% in the experimental track, illustrating that when students import conceptual frameworks from AI, they frequently adopt the machine's neutral, balanced perspective, thereby neutralizing their own authentic stance and personal agency.

Discussion

The statistical and qualitative feedback extracted from the TIIAME NRU writing trials validates the primary hypothesis that Generative AI acts as a powerful cognitive enhancer but introduces a clear risk of intellectual homogenization. As J. Jalolov argued, genuine communicative competency is manifested when an individual uses the target language to articulate an authentic personal worldview [1, P. 156]. When EFL learners outsource the creative ideation phase entirely to machines, they bypass the vital productive struggles of semantic formulation, which ultimately reduces the text's linguistic uniqueness.

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This trend directly matches the cognitive writing models formulated by L. Flower and J.R. Hayes, which state that writing is an active problem-solving process involving the translation of internal thought structures into external text [3, P. 380]. Generative AI fundamentally disrupts this cycle by providing pre-packaged external thought structures. If a student accepts these machine-generated concepts uncritically, their personal writing agency is compromised, resulting in essays that sound superficially fluent but lack a true individual identity, a phenomenon Ken Hyland calls "stylistic echo" [5, P. 118].

To leverage the cognitive advantages of AI without sacrificing student originality, language educators must implement an "Agency-Centered Scaffolding Model" [4, P. 56]. In this framework, AI should never be used to write the composition; rather, it should function as an interactive interlocutor for debate. Students should be taught to challenge AI prompts, identify inaccuracies, incorporate local socio-economic contexts (such as specific irrigation or agricultural realities relevant to Uzbekistan), and deliberately deviate from standard machine suggestions [6, P. 35].

By shifting the learner's role from a passive text recipient to an active prompt engineer and critical editor, the educational community can ensure that technology enhances—rather than replaces—human creativity.

Conclusion

The comprehensive structural examination of Generative AI integration within EFL writing classrooms allows for the formulation of the following conclusions:

First, Generative AI tools function as highly effective cognitive scaffolds during the pre-writing phase, significantly increasing conceptual diversity (+44.5%) and optimizing text organization for L2 writers.

Second, excessive reliance on algorithmic ideation causes a measurable decline in linguistic originality (-22.5%) and flattens the student's authentic critical voice, leading to repetitive stylistic patterns.

Third, to protect learner agency in the modern digital era, language instructions must evolve from traditional writing exercises toward hybrid methodologies that train students to critically filter, debate, and adapt AI outputs using independent human judgment.

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