

GENERATIVE AI AND THE ILLUSION OF COMPETENCE IN ENGLISH LANGUAGE LEARNING

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ABSTRACT

This paper examines the “illusion of competence” in English language learning associated with the growing use of generative artificial intelligence (GenAI). Drawing on research on cognitive offloading, metacognition, learner agency, and AI-assisted education, it considers the gap between high-quality AI-supported academic output and students’ independently demonstrated competence. The paper argues that the main pedagogical concern is not GenAI itself, but the delegation of cognitive processes essential for language development. An engagement-oriented approach is proposed in which AI-generated content is evaluated, explained, revised, and transformed by learners.

Keywords: generative artificial intelligence, English language learning, illusion of competence, cognitive offloading, metacognition.

INTRODUCTION

Generative artificial intelligence has rapidly become part of students’ everyday academic practices. Large language models can generate explanations, summaries, written responses, presentation outlines, translations, and linguistic corrections within seconds. In English language learning, such tools can provide immediate support and help students obtain feedback, compare formulations, and access explanations adapted to their needs.

At the same time, GenAI complicates an important assumption of traditional assessment: that the quality of a submitted product directly reflects the competence of the student who produced it. A grammatically accurate essay or well-structured presentation may now be created with substantial AI assistance. Therefore, the quality of the final product and the learner’s independently demonstrated competence should not automatically be treated as equivalent.

This discrepancy can be examined through the concept of the “illusion of competence.” Koriat and Bjork (2005) demonstrated that learners may develop an inflated sense of mastery when information appears accessible during study but cannot later be retrieved independently. In GenAI-assisted learning, a similar problem may arise when students can access and present sophisticated content but cannot explain, evaluate, or reproduce it without technological assistance.

COGNITIVE OFFLOADING AND AI-ASSISTED LANGUAGE LEARNING

Cognitive offloading refers to the use of external resources to reduce the mental demands of a task (Risko & Gilbert, 2016). Such offloading is not inherently negative: learners have long used dictionaries, notes, calculators, and digital resources to support cognition.

Generative AI, however, greatly expands what can be delegated. It can generate ideas, organize information, summarize texts, reformulate language, suggest arguments, and produce complete responses. The relevant pedagogical question is therefore not simply whether students use AI, but which cognitive processes they transfer to it.

Recent research shows that GenAI use can produce both supportive and problematic learning patterns. Wang et al. (2026), reviewing research on GenAI, cognitive offloading, and learner agency, emphasize the role of reflection, self-regulation, and critical evaluation. AI can support learning when students remain actively involved, whereas dependence and uncritical acceptance of generated content may weaken learner agency.

This distinction is especially important in English language education. Asking GenAI to suggest alternative expressions may support learning when students compare options, evaluate differences in meaning and register, and make their own linguistic choices. In contrast, copying AI-generated language without understanding the choices involved may improve the immediate product without developing independent competence.

Liu et al. (2024) found that GenAI can change how students process and incorporate information during writing and multimodal composing. Fischer et al. (2024) similarly highlight the need to reconsider assessment when generative AI contributes substantially to students' written work. These studies suggest that polished output should not automatically be interpreted as evidence of equivalent cognitive engagement.

Recent EFL research also reflects this tension. Zheng and Wang (2026) identified “efficiency–capacity dissonance” among tertiary EFL learners: students appreciated the efficiency provided by GenAI while also expressing concern that excessive reliance could weaken independent abilities. Their findings do not prove that AI inevitably reduces competence, but they demonstrate that efficiency and independent learning may come into conflict.

For this reason, three levels of AI-assisted performance can be distinguished conceptually. At the first level, a student can obtain an appropriate answer with AI support. At the second, the student can explain and evaluate that answer. At the third, the student can independently transfer the relevant knowledge or linguistic skill to a new context. These levels should not be treated as equivalent indicators of competence.

PEDAGOGICAL IMPLICATIONS

The pedagogical response should not necessarily be the complete prohibition of GenAI. A more productive approach is to design tasks in which students' independent cognitive contribution remains visible.

First, AI-generated output should not automatically become the final product. Students can be required to verify information, identify weaknesses, explain linguistic choices, and revise generated material.

Second, independent effort should remain part of the task. One possible sequence is:
independent attempt – AI-assisted comparison – evaluation – revision – reflection.

For example, students may first write a paragraph independently and then compare it with an AI-generated version. They can analyse vocabulary, grammar, register, and organization before producing a revised text and explaining their decisions.

Third, oral verification can complement written assignments and presentations. Brief follow-up questions can show whether students understand the material, can reformulate it in their own words, and can apply the same knowledge in a slightly different context.

Assessment should therefore pay greater attention to explanation, justification, evaluation, adaptation, and transfer. These processes make the learner's contribution more visible and reduce the risk of equating polished AI-assisted output with independently developed competence.

CONCLUSION

Generative AI offers important opportunities for English language learning, including immediate linguistic support, explanations, feedback, and examples. The main pedagogical challenge is not the technology itself, but how cognitive responsibility is distributed between the learner and the AI system.

The concept of the illusion of competence helps explain situations in which the apparent quality of student performance exceeds what the learner can demonstrate independently. Cognitive offloading further shows that external tools can reduce mental effort without being inherently beneficial or harmful.

For this reason, English language education should distinguish between AI-assisted output and independently demonstrated competence. GenAI can support learning when students remain responsible for understanding, evaluating, explaining, revising, and transferring knowledge. The central task is therefore not to eliminate artificial intelligence from language education, but to ensure that its use supports rather than replaces students' cognitive and linguistic engagement.

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