

AI Guidelines for Students of Teaching English as a Second or Other Language

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Prof. Dr. Dr. Heiner Böttger, Catholic University Eichstätt Ingolstadt

The following guide was developed in February 2026 by Ken Purnell, entitled “AI Guidelines for Educational Neuroscience Students” at CQUniversity Australia. You can watch the 90-second video related to these guidelines at <https://share.descript.com/view/teS1E4oy6Cm>. The guide has been adapted for the use of students of teaching English as a Second or Other language (ESOL) at the Catholic University Eichstätt-Ingolstadt. Examples in the sections “Prompting strategies”, “Key Risks to Understand” and “Declare your use” were adapted to cater to students of teaching ESOL needs. These altered sections are highlighted using “[...]”.

Understanding AI: What Chatbots Can and Cannot Do¹

Generative AI chatbots are probabilistic text predictors, not reasoning systems (Purnell, 2026a). They excel at pattern matching across large datasets but lack genuine understanding. As Yann LeCun notes, a four-year-old has encountered roughly 50 times as much real-world data as the largest language models (LLMs), absorbing continuous sensory experiences that shape understanding in ways that text alone cannot replicate (in Bradley, 2026; Purnell, 2026a). Current chatbots learn only from static text patterns, divorced from embodied experience, causality, and grounded world models.

This fundamental limitation means that outputs that sound confident, coherent, and persuasive can still be entirely false. Recent benchmarking found that the highest-performing model achieved approximately 68.8% accuracy across diverse knowledge tasks, with roughly one in three responses containing factual errors despite high linguistic confidence (Google FACTS Team, 2025; Purnell, 2026a). Independent newsroom testing reported accuracy issues in approximately 48% of responses, with 17% classified as serious factual or sourcing errors (Gaudiaut, 2025).

The central truth: Generative AI can support specific tasks, but it cannot replace human expertise, critical thinking, or deep learning (Purnell, 2026a).

Why This Matters for Your Brain and Learning

When you outsource analysis, synthesis, and argumentation to AI, you bypass the cognitive processes that build durable memories and deeper understanding (Purnell, 2026a). Recent brain-imaging research found that students who used conversational AI to generate essays showed substantial reductions in functional connectivity during writing tasks and struggled to recall key details from their own essays just minutes after writing (Kosmyna et al., 2025; Purnell, 2026a).

When AI generates the work, the brain engages less deeply because the neural pathways required for learning are not activated. Your working memory can hold approximately 4–7 items at a time (Cowan, 2014). When you think deeply about a problem and construct your own explanations, you actively build durable schemas and strengthen long-term learning. When AI reduces cognitive strain, it may also diminish the productive challenge needed for effective memory encoding (Dubinsky & Hamid, 2024; Purnell, 2026a, 2026b).

¹ Purnell, K. (2026). “AI Guidelines for Educational Neuroscience Students”. CQUniversity Australia.

Your learning requires cognitive engagement that AI cannot provide for you.

Your Four Core Responsibilities

- 1. Be Transparent:** Always include a brief acknowledgement statement explaining how you used AI. Generative AI tools (ChatGPT, Copilot, Claude, Perplexity, DALL·E) require explicit disclosure. Basic spell-checkers (Grammarly, Apple Writing Tools) do not.
- 2. Be Responsible:** Your work must reflect your own thinking. Your critical judgement, intellectual contribution, and control must remain central. You are developing capabilities that cannot be delegated to AI (Purnell, 2026a).
- 3. Be Critical:** Treat all AI-generated information as unreliable and unverified until proven otherwise (CQUniversity Australia, School of Graduate Research [CQU SGR], 2026; Purnell, 2026a). Cross-check every claim and citation with authoritative scholarly sources before use.
- 4. Be Purposeful:** Use AI to expand, not displace, your reasoning (Purnell, 2026a). Focus on AI as a thinking amplifier within a framework of human oversight and critical judgment.

What AI Does Well

AI excels at specific, bounded tasks when used intentionally with sustained human oversight (Purnell, 2026a).

- **Ideation and brainstorming:** Exploring alternative perspectives, generating examples, or seeking analogies to broaden your thinking.
- **Accessibility support:** For students with dyslexia, language-based learning disabilities, or hearing impairments, AI can summarise dense texts, generate alternative explanations, transcribe audio notes, and adapt text—serving as a scaffold for equity.
- **Scaffolded feedback:** Drafting responses, seeking feedback, and iterating, provided you retain ownership of your thinking and verify content independently.
- **Research synthesis with verification:** Locating and synthesising information, provided that human judgment remains central and verification is non-negotiable.

Common thread: AI works best as a thinking amplifier within a framework of human oversight. It is most problematic when it replaces rather than enhances your thinking (Purnell, 2026a).

Key Risks to Understand

Risk	What You Need to Know
Hallucinations	GenAI frequently generates fabricated references and false claims. Verify all outputs against authoritative databases (Google FACTS Team, 2025; Purnell, 2026a).
Privacy Breaches	Never upload sensitive data, participant information, or confidential materials. Use institutional [AI tools like AcademicCloud, ChatGPT, Microsoft Copilot (via KU login)] for maximum protection (CQU SGR, 2026).

Copyright Violations	Uploading licensed PDFs to GenAI may breach copyright regulations (CQU SGR, 2026; Purnell, 2026a).
Bias	AI outputs often reflect Western datasets and worldviews. Be alert to cultural, gender, and other biases (CQU SGR, 2026).
Academic Integrity	Inappropriate AI use may constitute plagiarism or misrepresentation (CQU SGR, 2026).

Effective Prompting and Verification

[examples adapted for students of teaching ESOL]

Prompting strategies (CQU SGR, 2026; Purnell, 2026a):

- Use clear instruction verbs: summarise, explain, compare, classify
- Provide context: "As a [pre-service teacher of English as a Second Language], I need to understand..."
- Be specific: Instead of "Tell me about [teaching English as a second language]," try "[Present ideas how to structure an English as a second language learning lesson that trains listening comprehension]."
- Iterate: Refine prompts based on initial outputs

Verification using CRAAP (CQU SGR, 2026):

- **Currency:** How old is the AI tool and training data?
- **Relevance:** Is the information fit for purpose? Can you verify with scholarly sources?
- **Accuracy:** Do the cited references actually exist? Has the AI hallucinated?
- **Authority:** Can you trace the source of the generated information?
- **Purpose:** What biases might be present?

Documentation and Declaration Guidelines

[examples adapted for students of teaching ESOL]

Declare your use:

When you submit graded assignments, always include a brief statement that describes the specific tool(s) used, how they were applied, and confirm that their use did not compromise academic integrity (CQU SGR, 2026). Those sections in the text produced with the help of Chatbots are highlighted and the Chatbots used are cited, including the prompts.

Example acknowledgement:

Acknowledgement: This work utilised [ChatAI from AcademicCloud] for initial brainstorming and clarification of phrasing. All substantive ideas, analyses, and conclusions are my original work.

Example for „Eigenständigkeitserklärung gem. §29 Abs. 6 LPO I“

Hiermit erkläre ich, dass die vorliegende Hausarbeit von mir selbstständig verfasst wurde, und dass keine anderen als die angegebenen Hilfsmittel benutzt wurden. Ich versichere, dass ich in dieser Arbeit die Nutzung von KI-Werkzeugen vollständig gekennzeichnet habe. Die Stellen der Arbeit, die anderen Werken dem Wortlaut oder

Sinn nach entnommen sind, sind in jedem einzelnen Fall unter Angabe der Quelle als Entlehnung kenntlich gemacht.

Diese Erklärung erstreckt sich auch auf etwa in der Arbeit enthaltene Grafiken, Zeichnungen, Kartenskizzen und bildliche Darstellungen.

Ort, Datum

Unterschrift

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