Research Proposal Presentation
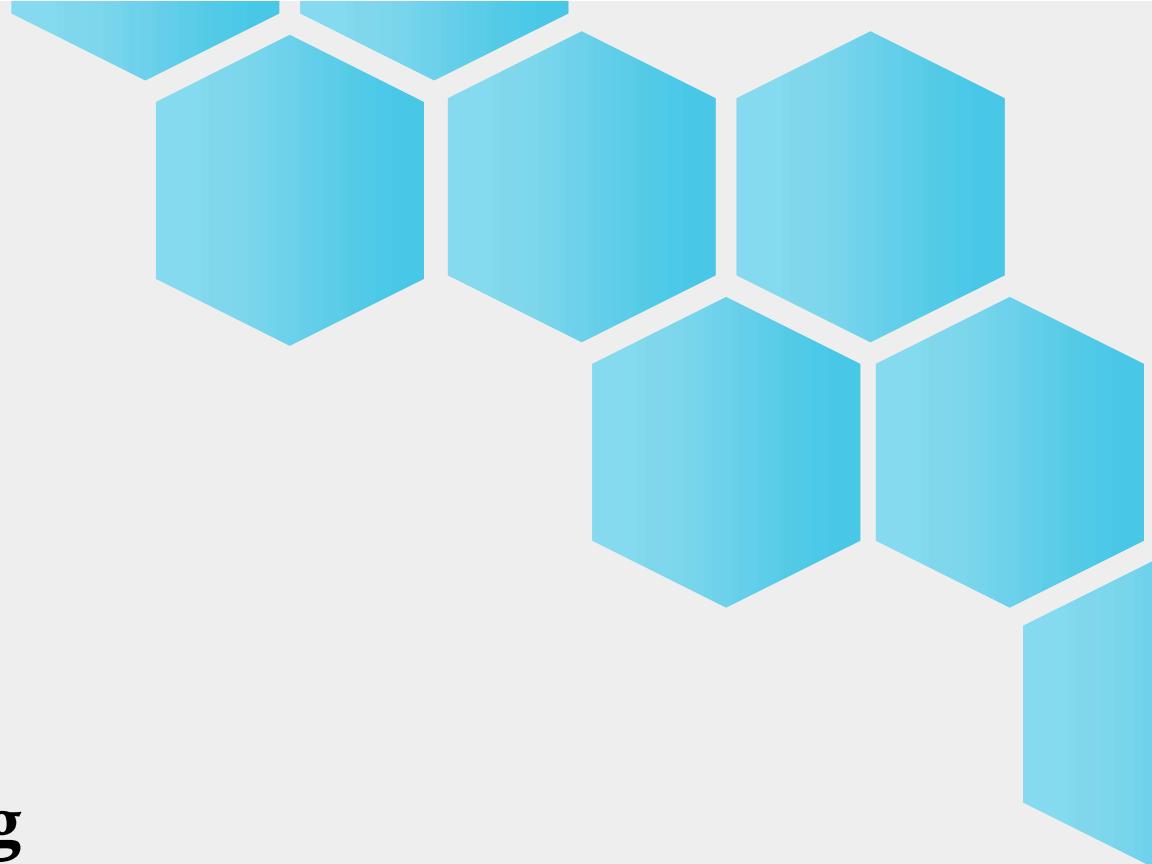
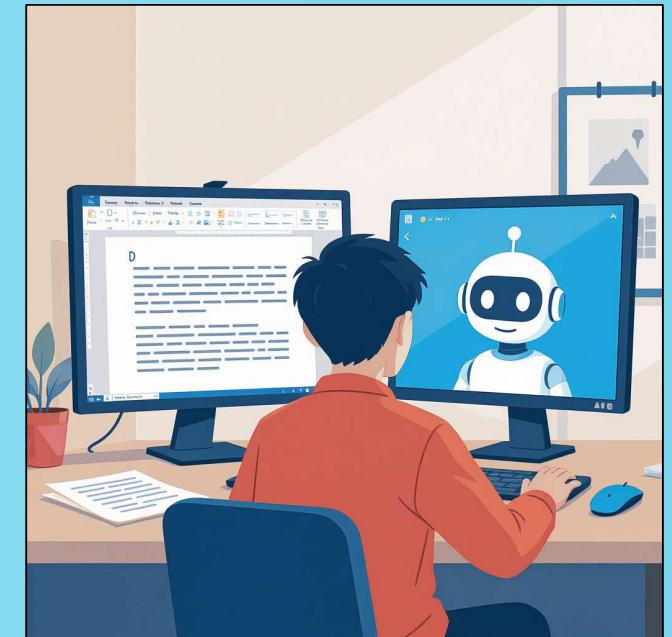# Long Term Effects of LLM Use on Independent Writing

Assistance & Integrity

- Better Support

- Unclear Authorship

- Unknown Long-term Impact

Review of the Literature

What the literature agrees on

- **Writing Quality:** Short term writing gains

- **Feedback at scale:** Scalable formative feedback

- **Access and inclusion:** Benefits for multilingual learners

Review of the Literature

What the literature disagrees on

- **Learning Depth**

- **Integrity Framing**

- **Detection**

- **Governance**

Review of the Literature

What's Missing?

Review of the Literature

What's Missing?

Long-term impact of AI-supported writing on independent writing remains unclear.

To what extent does sustained use of large language models for academic writing support the development of independent critical thinking and originality over time?

Aims & Goals

To determine whether sustained use of LLMs for academic writing improves students' **independent** critical thinking and **originality** over a single semester.

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To determine whether sustained use of LLMs for academic writing improves students' **independent** critical thinking and **originality** over a single semester.

- ● **Measure change over time** in independent writing performance using repeated AI-restricted writing tasks.

- ● **Compare performance patterns** between AI-supported tasks and AI-restricted tasks to assess transfer of skills.
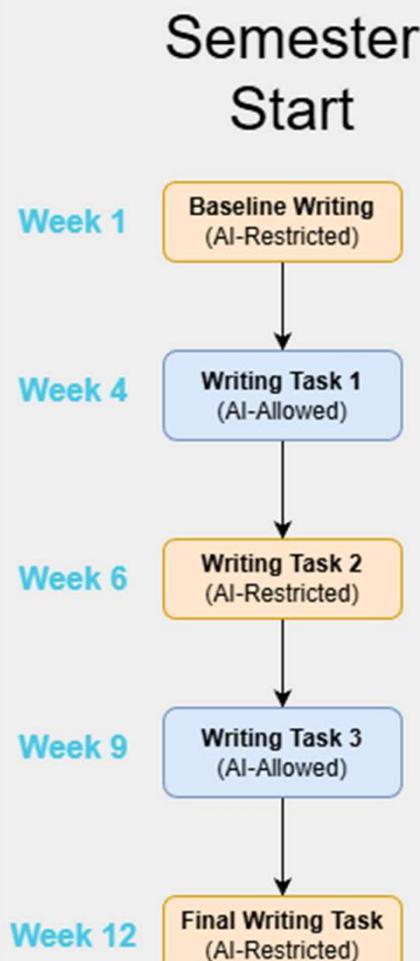
- ● **Operationalise and score** critical thinking and originality using a rubric focused on argument quality, evidence use, and originality indicators..

- ● **Examine AI-use patterns** through reflection and disclosure logs to identify signs of reliance versus strategic use.

Implementation

Semester Start

Week 1	**Baseline Writing** (AI-Restricted)
Week 4	**Writing Task 1** (AI-Allowed)
Week 6	**Writing Task 2** (AI-Restricted)
Week 9	**Writing Task 3** (AI-Allowed)
Week 12	**Final Writing Task** (AI-Restricted)

- **Sample size of 40 – 60 undergraduates**

Implementation

Example Writing Task

AI-Use Restricted

Source Text A (Peer-Reviewed Academic Research)
Excerpt adapted from:
Kasneci et al. (2023), ChatGPT for Good? On Opportunities and
Challenges of Large Language Models for Education, Learning and
Individual Differences.

Source Text B (Policy / Conceptual Perspective)
Excerpt adapted from:
UNESCO or OECD guidance on Artificial Intelligence in Education.
This text outlines a policy-oriented perspective, arguing for responsible and
transparent integration of AI tools in higher education, with an emphasis
on ethics, student development, and academic integrity rather than
prohibition or detection.

**Using the two provided texts, develop an argument in response to
the following question:**
*To what extent should large language models be integrated into academic
writing practices in higher education?*
Evaluate the authors' claims and justify your position using
evidence from the texts.

Post-Writing Task Reflection

(Gibb's Reflective Cycle)

After each writing task, students will
complete a short reflective piece.

- **Description**
- **Feelings**
- **Evaluation**
- **Analysis**
- **Conclusion**
- **Action Plan**

Student Writing Task Evaluation

British Academic Written English (BAWE)

- Argument
- Evidence use
- Critical engagement
- Ccoherence

IELTS/British Council Writing band descriptors

Link to band descriptors

- Clarity & Coherence **(4-9)**
- Lexical Range **(4-9)**
- Grammatical Control **(4-9)**

Participation

- Informed Consent

- Voluntary Participation

- No Academic Penalty

Participation

Informed Consent

Voluntary Participation

No Academic Penalty

Implementation

Data Collected

- Writing Task Submissions
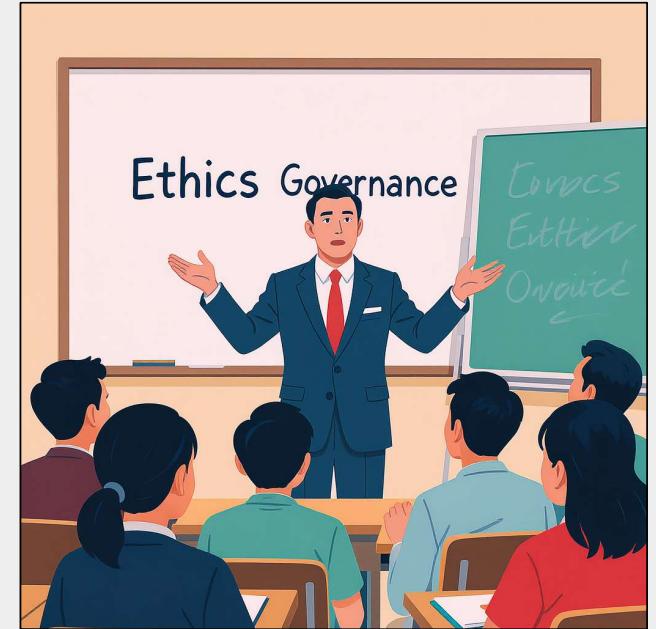
- Rubric Scores

- AI-use reflection logs

Ethical Considerations

GDPR Adherence

- ☑ Informed consent
- ☑ No academic penalty
- ☑ Data protection
- ☑ Fairness & wellbeing

Artefacts Created

Before Project

- Writing Task Papers
- Informed Consent Documents
- Scoring Sheets

During Project

- Writing Task Submissions (paper & digital)
- Post-task reflective pieces
- Anonymised grading sheets

After the project

- Online archive of writing tasks & reflections (participant ID only)
- Final summary report with findings and recommendations for LLM use

Conclusion

Long-term use of AI

Writing as a part of life

Danger to a
generation's writing

Guide structured AI writing to
protect integrity and strengthen
learning, depending on what the
data reveals.

Thank you for your time & Attention

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