



The University of Manchester

Teaching students how to collaborate with AI effectively and appropriately through an AI-integrated EAP module

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Outline

1. Integrating AI literacy into an EAP module – rationale and implementation
2. Impacts of an AI-integrated EAP module
3. Limitations

1. Integrating AI literacy into an EAP module

What is AI literacy?

- AI literacy is "*a set of competencies that enables individuals to critically evaluate AI technologies; communicate and collaborate effectively with AI; and use AI as a tool*" (Long & Magerko, 2020, p.2)

1. Integrating AI literacy into an EAP module

Why should we teach AI literacy?

- The use of GenAI is an inescapable reality (Alhabri, 2023) amid
- AI literacy is also regarded as a key graduate attribute (World Economic Forum, 2023)
- AI is of *particular benefit* for international students (Farrelly & Baker, 2023)
- Students want to learn how to use AI (Jisc, 2024)

1. Integrating AI literacy into an EAP module

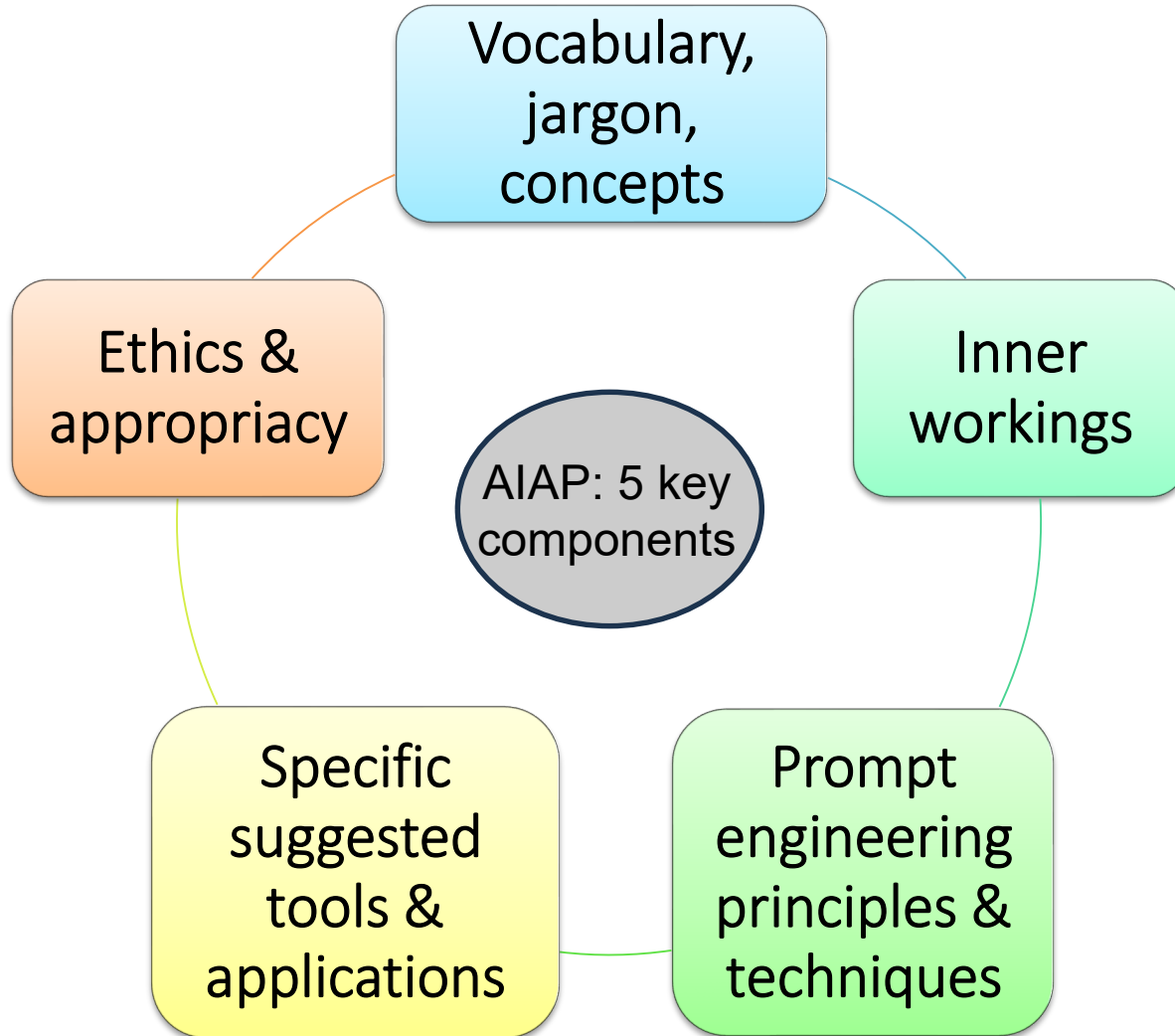
Why AI literacy and EAP?

- Overlap between academic skills and GenAI's applications
- Additional language support for non-native speakers of English
- Coursework as assessment amid the lack of reliable GenAI detection tools (Chaka, 2023)
- Content on avoiding academic misconduct
- Small sizes; communication-focused

1. Integrating AI literacy into an EAP module

How to integrate AI literacy into an EAP module?

- **Artificial Intelligence for Academic Purposes (AIAP):** A framework for explicit and integrated AI literacy instruction for general academic purposes



My module & students

- English for Academic Purposes 2
- 10 weeks (five hours per week divided into two classes)
- Process-approach (pre-writing, writing and post-writing stages)
- Academic report and presentation as assessments
- 39 International Foundation Year students from 22 nationalities and various subjects

AIAP1. Vocabulary, jargon, concepts

- An understanding of these terms to engage in discussions on AI-related content e.g. ethical issues.
- Key terms to teach: *machine learning, generative AI, large language models, training*
- Week 1

AIAP2. Inner workings

- A **basic** understanding of how AI tools work 'under the hood' to facilitate an understanding of their uses and limitations (Chiu, 2024).
- Useful videos:
<https://www.youtube.com/watch?v=t9gmyvf7JYo>
<https://www.youtube.com/watch?v=4RixMPF4xis>
- Week 1

AIAP3. Prompt engineering

- A solid grasp on the principles of effective prompt engineering to allow maximum utility from use of models (Knoth et al., 2024)

AIAP3. Prompt engineering

- Prompt engineering framework CREATE (Birss, 2023) followed by an example

Identify the following elements

C - Character (what role do you want it to play?)

R - Request (tell it specifically what you want it to do – give context and useful info)

E - Examples (GPT is great at learning from examples)

A - Adjustments (where you make changes to improve output)

T - Type of output (bullet point, table, 500 word summary etc)

E - Extras (eg. 'ignore everything before this prompt', 'ask me questions before you answer', 'explain your thinking').

AIAP3. Prompt engineering

- Prompting practice

Work in pairs/groups of three. Choose a GenAI tool. Use the CREATE framework to create prompts for the following scenarios. Discuss the output and iterate appropriately. Be prepared to share your output with the class.

- 1. You want to revise an aspect of a subject you're not sure about. Aim to output explanation and a test as a minimum.*
- 2. You have some math exercises that you did with your tutor in the class. You want to practise similar exercises.*
- 3. You want to learn a language of your choice as a beginner.*

AIAP4: Specific suggested tools & applications

- ChatGPT: brainstorming, reference list correction, feedback
- Elicit and Consensus: finding sources
- Perplexity: brainstorming and finding sources

Tasks:

- Compare how Elicit and Consensus work
- Compare ChatGPT and Perplexity output
- Evaluate AI-generated output

AIAP5. Ethics & appropriacy

- A deep and practical understanding of what appropriacy/ethical use is and isn't, and an understanding of why this is the case.
- Open and transparent communication practices (Chan, 2023)
- Student-led discussions on academic AI use scenarios

1. *Susan is struggling with the conclusion of her report on personalised medical devices. She provides ChatGPT with her analysis, asking it to write a fitting conclusion. She then adds this conclusion to her report and submits it as her own work.*
2. *Jane is preparing a presentation about the impact of immigration. She asks Perplexity to explain the impact of immigration on the global economy and uses Perplexity's ideas in her presentation. She cites and references Perplexity.*

AIAP5. Ethics & appropriacy

- Students work in groups and make a list of appropriate and inappropriate AI use.
- Students compare their lists with the university's AI guidance.
- Tutors model how to fill in the Declaration of AI use.
- Students read articles on wider ethical considerations of AI.

Impacts of the module

- Pre- and post-module surveys
- Interviews with students

Students' perceptions and attitudes

- A more critical perspective on the biases and limitations of generative AI
- A change of attitudes from fear to understanding
“before I was able to [...] interact with AI [...] there is quite a stigma with using AI and research because you can come across as not having integrity and plagiarism [...] after that I don't have the stigma anymore. I understand that this can be used in a positive way in a legal way and it's not always that if you use AI you are not being a good person, you're plagiarising and you don't have integrity.”

Students' confidence

- The overall confidence as well as confidence in using various AI tools introduced in the module increased.
“I am the person who had no idea about AI before and did not know how to use it. Now it can help me with finding sources and checking grammar, as I am not the native speaker.”
- Students' confidence in using AI ethically and appropriately also increased
- Almost half of students wrote that the most important thing they learned from the module was ethics- and appropriacy-related (e.g. *I learnt the disadvantages of over-reliance on AI; the ethical ways of using AI in university*)

Students' needs

Combination of AI literacy and academic skills instructions can address students' needs.

“20 to 30 % (of my improvement) is (due to) AI, to be honest, because without AI I spend too much time to find sources, and then about 80 % is because of the teachers – if I don't know the structure of essay – even if I have correct sources I cannot make the essay.”

Limitations

- Small sample size
- Self-reported data
- Lack of triangulation with student writing
- Rapid technological developments
- Rapid changes in students' attitudes towards AI and competencies

Full paper with course outline and more classroom materials



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Q&A



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