# **Prompting tips: Program logic models** and theories of change

#### Introduction

These tips aim to help Australian Public Service (APS) officers interested in using Gen AI tools to support them in developing theory of change and program logic models. They relate to video 4 from the "Artificial Intelligence (AI) tools for Evaluation in the Australian Government" series.

This video series and resources are meant to inspire ideas and learning. They are not designed to be a manual. It aims to show how AI tools, especially generative AI (Gen AI) can support the evaluation process. The goal is to help evaluators and APS staff explore how AI can be useful, and where it is less useful.

Al can help with repetitive tasks but cannot replace expert knowledge. APS officers must carefully review AI outputs. Any AI-based decisions and products must be owned by the officers. This human oversight can help ensure that results are accurate, fair, and culturally appropriate.

Please note that you should only use AI tools that have been approved by your agency or department. Any documents that you upload to the tool should only be up to the security clearance level approved for the tool by your agency or department.

## Prompt engineering

A prompt is an instruction in natural language that tells a Gen AI tool to perform a task. Prompt engineering is the process of creating and refining these prompts to get a suitable output from the tool. $^{1}$  Table  $^{1}$  below shares some overarching tips for using Gen AI tools. This is derived from the AI Colab's "AI for Policy People" course, available through APSLearn. These tips are organised along four pillars:



Chat, not search

<sup>&</sup>lt;sup>1</sup> Prompts overview | Microsoft Learn

Table 1: Essential prompt engineering tips

Share specifics and context	Provide examples	Avoid leading or biased prompts	Chat, not search
Gen Al tools like Copilot are not search-engines, they don't work on keywords, they work on the meaning of words and how they are used, just like people. For more tailored, and useful responses from Al tools, you should provide as much context as you can, with specific requests. Vague prompts lead to generic answers.	Gen Al tools can "read between the lines" pick up a lot of indirect instructions when you share raw examples about your topic of interest. Examples help reinforce your specific requests.	Use balanced prompts/requests to get well-rounded responses. Avoid leading or biased prompts. If you are unsure that the Gen AI tool has considered all aspects of your query, simply ask it to be appropriately critical.	Use Gen Al tools conversationally. Ask clarifying questions, build on responses, and treat it like a colleague you're bouncing ideas off. Don't expect a perfect response in one go. Iterate, get a rough version, revise and refine through additional prompts.

# Prompting tips to identify outcomes, causal links, and assumptions

These are some examples of prompts that you could use to identify elements of your theory of change and program logics. Using them in sequence may help to generate more useful outputs. These can be used and adapted to most Gen AI tools such as Copilot.

#### **Outcomes**

- 1. "Please summarise this document/these documents in 1-2 pages". (this helps prime the Gen AI tool with reference content)
- 2. "Please define outcomes in the program evaluation context. Provide references for your response." (this provides a frame of reference or context for the AI tool for the follow-up question you will ask).
- 3. "What are the types of program outcomes such as short, medium and long-term? Provide references for your response."
- 4. "Based on this document(s), what are the program's short-, medium-, and long-term outcomes? Provide page references for your response, and a referenced rationale."

#### Causal links between activities, outputs, and outcomes.

- 5. "Please define causality and causal links in program evaluation. Provide references."
- "Based on this document(s), how is (x) program activity linked to (y) outcomes?" (this can 6. be repeated for each specific activity).
- 7. "Based on this document(s), what are the changes we should expect to see to achieve outcome (x)? Please arrange these on a timeline, from more immediate changes to ones which will follow. Provide references."

#### Assumptions and external factors

- 8. "What are some common definitions of assumptions and external factors in the program evaluation context? Please provide references."
- 9. "What are some of the program assumptions in the attached document? Please provide page references."
- "Based on a review of similar programs, what are some of the underlying assumptions that need to be true for (x) program activity to lead to (y) outcome? Please justify your response with references"
- "What are some of the external factors which could influence the program in the attached 11. document? Please provide page references."
- 12. "Based on a review of similar programs, what are some of the external factors which could influence the program's ability to achieve its outcomes? Please identify these for individual outcomes and justify your response with references"

# Prompts and considerations for developing a logic model

To build a coherent logic model, prompt any Al tool to define each component, and approach this in sequence (inputs, outputs, and so on). The idea is to generate responses in a way that mimics how a human would approach this problem or request. A human would first try to learn or recall what each term means, and based on this, classify program logic elements. An example sequence of prompts could be as below, once the program document has been uploaded to the tool:

- "Please summarise the uploaded document" (this helps prime the AI tool with reference 13. content)
- 14. "What does the term input mean in the program evaluation context? Provide references for your response."
- 15. "List all the program inputs from the uploaded document. Provide page references for each"

Repeat steps 2 and 3 for inputs, activities, outputs, short-term outcomes, medium-term outcomes, long term outcomes, and external factors

"Please share program logic model templates" 16.

Avoid asking any AI tool to generate a full logic model in one go. This increases the risk of a "hallucination" or false result based on training data. Instead, take a step-by-step approach by prompting for each element separately, and populate the template yourself.

#### Testing and finalising the logic model

Once a draft logic model is ready using the steps above, the next phase is stakeholder consultation to validate the logic model. The breadth and depth of this consultation will depend on factors such as the program's complexity, the intended consumers (whether they belong to underserviced communities), and the materiality among others. Materiality means the quantitative (e.g. monetary value) and qualitative significance of the program being evaluated<sup>2</sup>.

### Policy and training

All use of Al tools must comply with the Policy for the responsible use of Al in government. Your use of AI tools should also comply with any guidance and any specific requirements from your entity's accountable official under the Policy for the responsible use of AI in government.

The ACE strongly recommends that you complete the APS Learn course, Al in government fundamentals. This course has been designed to provide all APS staff with foundational knowledge of AI, and the principles of safe and responsible use.

Lastly, you can test a suite of AI tools on GovAI. This is a secure, APS-only platform designed to help APS officers learn about and use artificial intelligence (AI).

 $https://www.aph.gov.au/Parliamentary\_Business/Committees/Joint/Public\_Accounts\_and\_Audit/PolicyandProgramDesign/Report/Public\_Accounts\_Account$ Chapter 5 - Performance and impact measurement