

Effective AI Prompting: A Strategic Guide

This guide outlines key techniques for crafting powerful prompts to generate more precise, creative, and useful responses from AI language models. By applying these strategies, you can enhance your collaboration with AI tools for educational and project-based work.

Reference:

This guide adapts and builds upon concepts from IDEO U's "Brainstorming with AI: AI x Design Thinking Workshop Series Workbook" (2024).

Personas & Audience

_ Assign a strategic role to channel the AI's expertise.

Using personas and specifying an audience directs the AI to respond from a particular viewpoint, ensuring the output is tailored and relevant.

Technique	Strategic Prompt Example	Responses
Use Personas	Act as a veteran secondary school teacher in Hong Kong. Design a classroom activity that helps students develop critical thinking and problem-solving skills.	
Define the Audience	Act as a veteran secondary school teacher. Design a classroom activity for Form 4 students in a Hong Kong local school that teaches problem-solving through a real-life local scenario.	

Personas Explored Further

Personas are foundational to effective prompting. They provide a specific lens—a set of expertise, concerns, and communication styles—through which the AI frames its response. This is crucial for targeting content or exploring diverse viewpoints.

Persona	Description	Example Prompt
<i>The Specialist</i>	An authority in a specific field.	"As an educational psychologist specializing in adolescent development, what are effective strategies to help Hong Kong students manage exam stress while building resilience? "
<i>The End-User</i>	The ultimate consumer of a product/service.	"What are the main challenges a Hong Kong university student faces when trying to find a quiet and affordable place to study?"
<i>The Novice</i>	An individual new to a topic.	"Explain the basic steps of the engineering design process to a group of Form 1 students, using the example of designing a better school backpack."
<i>The Innovator</i>	A creative thinker focused on novel solutions.	"Brainstorm five innovative ideas for a student-led mobile app that addresses a common problem in Hong Kong school life, from the perspective of a tech-savvy social entrepreneur."
<i>The Analyst</i>	A critical thinker who evaluates risks and logic.	"From an urban planner's perspective, analyze the potential benefits and drawbacks of implementing more 'pocket parks' in dense Hong Kong neighbourhoods like Mong Kok."
<i>The Advocate</i>	A passionate supporter of a cause or topic.	"Write a persuasive speech for a student council election, advocating for the integration of more digital literacy and AI ethics

		education into the school curriculum."
<i>The Guardian</i>	A person responsible for others' well-being.	"What key features should a parent look for in an after-school activity that genuinely builds problem-solving skills, not just academic knowledge, for their child in Hong Kong?"

Constraints

_ Set boundaries to focus creativity and enhance practicality.

Well-defined constraints challenge the AI to generate more refined and actionable ideas by limiting the solution space.

Technique	Strategic Prompt Example	Responses
<i>Apply Basic Constraints</i>	As a student project leader, propose a plan for a school club initiative that teaches problem-solving. The activity must be collaborative and take place on school grounds.	
<i>Apply Detailed Constraints</i>	As a student project leader, propose a plan for a school club initiative that teaches problem-solving. The activity must be collaborative, require a budget under HKD \$500, use mainly recycled materials, and be completed within a single semester.	

Wild Ideas

_ Push beyond conventional solutions to unlock novelty.

Explicitly asking for "wild," "novel," or "unconventional" ideas frees the AI from the constraints of current feasibility, leading to breakthrough concepts.

Tips	Strategic Prompt Example	Responses
<i>Solicit Wild Ideas</i>	Generate concepts for a student-led project that uses Hong Kong's unique urban environment (like its MTR system, wet markets, or public housing estates) to teach creative problem-solving. The ideas can be speculative or seemingly unrealistic—the goal is to think outside the box.	

Give Examples

_ Illustrate the desired style, tone, or format.

Showing the AI what you want by providing examples is one of the most effective ways to guide its output.

Technique	Strategic Prompt Example
<i>Give Examples</i>	"Generate ideas for student projects that solve a common school-life problem. Here are examples of the inspirational tone and project type I'm seeking: • The Locker Lottery: A system that randomly assigns students a new locker neighbour each month to encourage social mixing and conflict resolution. • MTR Study Hack: A student-created guide and app that identifies the quietest carriages and best times for productive studying on specific MTR lines. • Cha Chaan Teng Maths Challenge: A fun worksheet that uses menus from local cafes ('Cha Chaan Teng') to create real-world maths problems about discounts and splitting bills. Now, generate new ideas that are similarly practical and rooted in Hong Kong student life."

Format the Output

_ Specify the format for organized and actionable results.

Directing the AI on how to present information saves time and ensures the output is ready for your specific use case, such as a presentation or a project proposal.

Technique	Strategic Prompt Example	Responses
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<i>Format as a List</i>	Generate 8 ideas for problem-solving projects that Hong Kong student clubs could run. Present each idea as a numbered list item. For each, provide a catchy project name followed by a one-sentence description, separated by a colon.	
<i>Format as a Table</i>	Generate 8 project ideas. Present them in a table with four columns: Project Name, Core Problem Solved, Key Activities, and Required Resources.	

Get Visual

_ Transform abstract ideas into tangible visuals.

Use AI image generation tools to create visual representations of your best concepts, which can be powerful for presentations and project pitches.

Technique	Strategic Prompt Example for an Image Generator	Responses
<i>Generate a Visual</i>	Create a realistic image of a 'Homework Buddy Booth,' a small, sound-proof pod installed in a Hong Kong public library. A secondary school student is inside, using a tablet that offers guided problem-solving steps for a maths question. The style should be bright and modern.	

Reference:

IDEO U. Brainstorming with AI: AI x Design Thinking Workshop Series Workbook. IDEO, 2024.

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