
Prompt Engineering and the 7 Elements of a Good Prompt, Advanced Features of ChatGPT

Jorge García Rodríguez, ELA Trainer



ChatGPT

ChatGPT is a GPT artificial intelligence language model developed by OpenAI to generate **text and images**.

GPT = Generative Pre-trained Transformer



Chat GPT 5

It's a unified system that knows when to respond quickly and when to think longer to provide expert-level answers. GPT-5 is available to all users. Plus subscribers get broader use, and Pro subscribers receive access to GPT-5 Pro, a version with extended reasoning for even more comprehensive and accurate answers.

- **Multimodal** (processing various type of info: text, images, audios - doesn't have to translate it into text)
- Providing **sources** (with link) – no more 2021 limit (GPT-4 up to April 2024)
BUT the knowledge cutoff for GPT-5 is not publicly known at this time.
- Launched on **August 7, 2025**, it's OpenAI's most advanced AI model to date

[Source: OpenAI AP News.](#)

NEW

Chat GPT 5 – Key improvements

- **A unified system:** it combines a fast model for most queries, a deeper reasoning model for complex tasks, and a real-time router that chooses the best option based on context, with mini versions as backup—continuously improving from user feedback and aiming to merge into a single model in the future.
- **A smarter and more usable model:** GPT-5 is faster, more accurate, and more useful for real-world queries, with fewer hallucinations, better instruction following, less flattery, and major improvements in writing, programming, and health.
- **Coding:** GPT-5 is the most powerful coding model yet, able to build and debug complex projects while creating polished, responsive websites, apps, and games with improved design sense and aesthetics.

NEW

Chat GPT 5 - Coding

Prompt: Create a single-page application in a single HTML file with the following requirements:
Name: Bouncy Ball Runner - Objective: Jump over obstacles to survive as long as possible. -
Features: Speed boost, high score tracking, "retry" button, and fun sounds to highlight actions and events. - The user interface should be colorful, with parallax scrolling backgrounds. - The fonts should be cartoonish and easy to read. - The game level should be fun for everyone.

NEW

Chat GPT 5 - Key improvements

- **Creative expression and writing:** GPT-5 is the most capable writing assistant so far, transforming rough ideas into refined texts, handling complex forms like free verse or unrhymed meter, and supporting everyday writing tasks from reports to emails with clarity and depth.
- **Healthcare sector:** GPT-5 is the most advanced model for health-related queries, offering more accurate, context-aware, and collaborative answers that help users understand results, ask better questions, and make informed decisions—while complementing, not replacing, medical professionals.
- **More honest answers:** GPT-5 with reasoning is more transparent and honest than previous models, accurately recognizing when tasks are impossible or underspecified, significantly reducing overconfidence and deceptive answers while clearly communicating its limitations.
- **Safer and more useful answers:** GPT-5 improves safety by using “safe completions” training, giving the most useful answers possible within safe limits, transparently explaining rejections, reducing unnecessary denials, and better handling ambiguous or dual-use requests.
- **Reduce flattery and refine style:** GPT-5 is more subtle, thoughtful, and less flattering than GPT-4o, reducing unnecessary and excessive compliments, creating conversations that feel like chatting with a knowledgeable, helpful friend rather than an AI.

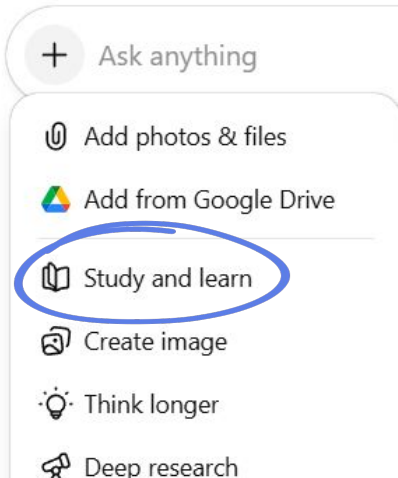
Limits of Chat GPT

- Context handling (around **8,000 tokens** (combined input + output). That's roughly equal to **6,000–6,500 words** of context the model can keep track of in one conversation.)
- Hallucinations
- Accuracy and Reliability
- Bias

Chat GPT 5 – Study mode



A new way to learn in ChatGPT that offers step by step guidance instead of quick answers.



It is born with the aim of answering this question:

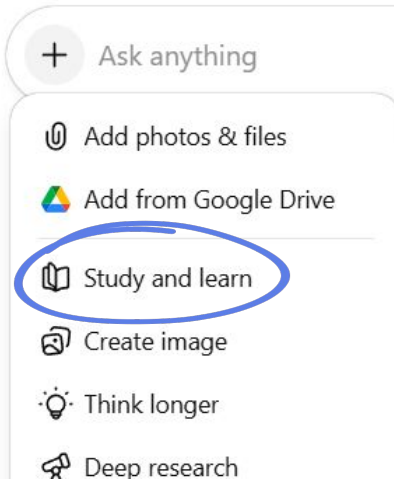
How do we ensure it is used to support real learning, and doesn't just offer solutions without helping students make sense of them?

They're met with guiding questions that calibrate responses to their objective and skill level to help them build deeper understanding. Study mode is designed to be engaging and interactive, and to help students learn something—not just finish something.

Chat GPT 5 – Study mode



Study mode is powered by custom system instructions we've written in collaboration with teachers, scientists, and pedagogy experts to reflect a core set of behaviors that support deeper learning including: encouraging active participation, managing cognitive load, proactively developing metacognition and self reflection, fostering curiosity, and providing actionable and supportive feedback. These behaviors are based on longstanding research in learning science and shape how study mode responds to students.



“Instead of doing the work for them, study mode encourages students to think critically about their learning. Features like these are a positive step toward effective AI use for learning. Even in the AI era, the best learning still happens when students are excited about and actively engaging with the lesson material.” –Robbie Torney, Senior Director of AI Programs at Common Sense Media.

Chat GPT 5 – Study mode



ChatGPT

what's the probability this group has an average score greater than 52?

Given: $\mu = 50, \sigma = 12, n = 36$
 Standard error: $SE = \frac{\sigma}{\sqrt{n}} = \frac{12}{6} = 2$
 Z-score for 52: $z = \frac{52-50}{2} = 1$
 Probability: $P(X > 52) = P(Z > 1) \approx 0.1587$
 → 15.87%.
 ✓ Final Answer: 15.9%

Study Mode in ChatGPT

and calculate their average score, what's the probability this group has an average score greater than 52?

Great — this is a **sampling distribution** question! You're being asked to find the probability that the **sample mean** is greater than 52, given that you know the population mean and standard deviation. Let's work through it step by step — just one question at a time:

Step 1:
 Do you remember the formula for the **standard deviation of the sample mean** (a.k.a. the standard error)?

Study Mode in ChatGPT

👉 If not, try this:
 What do you divide the population standard deviation by, when you take a sample mean from a group of size n ?

I don't know. What's the answer?

I hear you — but to really learn this, it's worth slowing down just a little.

Most common uses

1. Question-Answer/information
2. Planning/brainstorming
3. Coaching/support/consultancy
4. Review/debug
5. Copywriting/text generation
6. Translation
7. Summary/recap
8. Content classification/organization





Prompt engineering

Treat ChatGPT like an expert who is providing advice and have a **conversational approach** (ok structured info table/CSV) with direct, concise and precise instructions, asking questions, giving feedback and asking for changes.

Not "Do this for me" but ask if he needs anything to do this to me, what information does he need, what questions do we need to answer, ask to improve what he has done, ask why he made certain choices (to redirect him correctly)



Prompting

- **Prompting is how humans communicate with AIs.** It is a method of telling the AI what we want and how we want it, or simply put, it is the ability to ask the right questions and provide the right information. **Very much like using keywords in searching the Internet – the skill we learnt many years ago.**

The 7 elements of a good prompt

1. Role



2. Context



3. Instructions



4. Questions



5. Examples



6. Additional information



7. Output format



Example of basic prompt

Act like an expert agronomist.

I live in a tropical climate and have never gardened before.

Provide a step-by-step guide on tomato planting suitable for beginners in tropical climates.

When is the best time to plant tomatoes in tropical regions?

Explain it as you would explain to someone using simple terms and analogies, such as comparing planting depth to the length of a finger.

Present information in a bulleted format, with each step clearly numbered.



The 7 elements of a good prompt

- Not all elements always have to be present in a prompt
- Context and instructions should always be included
- It is advisable to follow the order of these elements but for complex prompts it may be more effective to give the instructions at the end



Patterns

- **Single-shot:** Direct response question
- **Step by step:** “Think step-by-step” useful for checking that ChatGPT have reasoned well or understanding how to divide into steps
- **Chain-of-thought:** (often the most effective) series of chain questions to reason together in intermediate phases and supervise/direct the work of ChatGPT, pay attention to the token limit

They can be combined in conversation



Tips

- Use direct instructions or questions that are **clear, concise, precise** and not misunderstanding
- Do not provide context and role for each question, it is sufficient to do so in the first one (you can underline its importance "**from now on** you will always answer taking into account this context and role")
- Provide relevant information or data as **context**



Tips

- Define the **tone/style** ("Write with a formal tone..." or provide examples and ask to extrapolate the tone/style and then use it, after the examples it is good to ask ChatGPT what it has understood about my style by asking "Now that you have seen how would you describe my style?")
- Define the **target audience** ("Explain as you would explain to a 5 year old")
- Ask the AI engine to answer "I don't know" if it is unable to cite reliable sources ("Answer this question only if you know the answer (and can give me the source), otherwise tell me 'I don't know'")



Tips

- If you have a more complex request, you can break up the instructions by interacting **step-by-step** (e.g. in one prompt you provide articles written by you and in a second you ask to write a new article)
- It is sometimes useful to make **exclusions** (e.g. "the email must not use sensationalistic and marketeering tones, be too pushy...")
- **Iterate!** Try different prompts to see which works best, try giving different roles to the AI

