



# PROMPT ENGINEERING



## Foreword

This guide grew out of the Readco.ai Agent initiative—an Erasmus+ collaboration that blends the arts, artificial intelligence, and the Socratic method to boost reading comprehension in five languages. At the core of Readco.ai’s animated storytelling lies prompt engineering: each scene, reflection, and follow up task is sparked by a well crafted prompt that nudges generative AI toward inclusive, creative, and cost effective learning moments. By weaving the 17 UN Sustainable Development Goals into every narrative, the project also cultivates a shared appreciation of common European values.

The practical techniques you are about to explore capture the project’s most useful lessons. Whether you are a teacher guiding a classroom debate or a learner experimenting at home, these prompts will help you steer AI with confidence and imagination.

# TABLE OF CONTENT

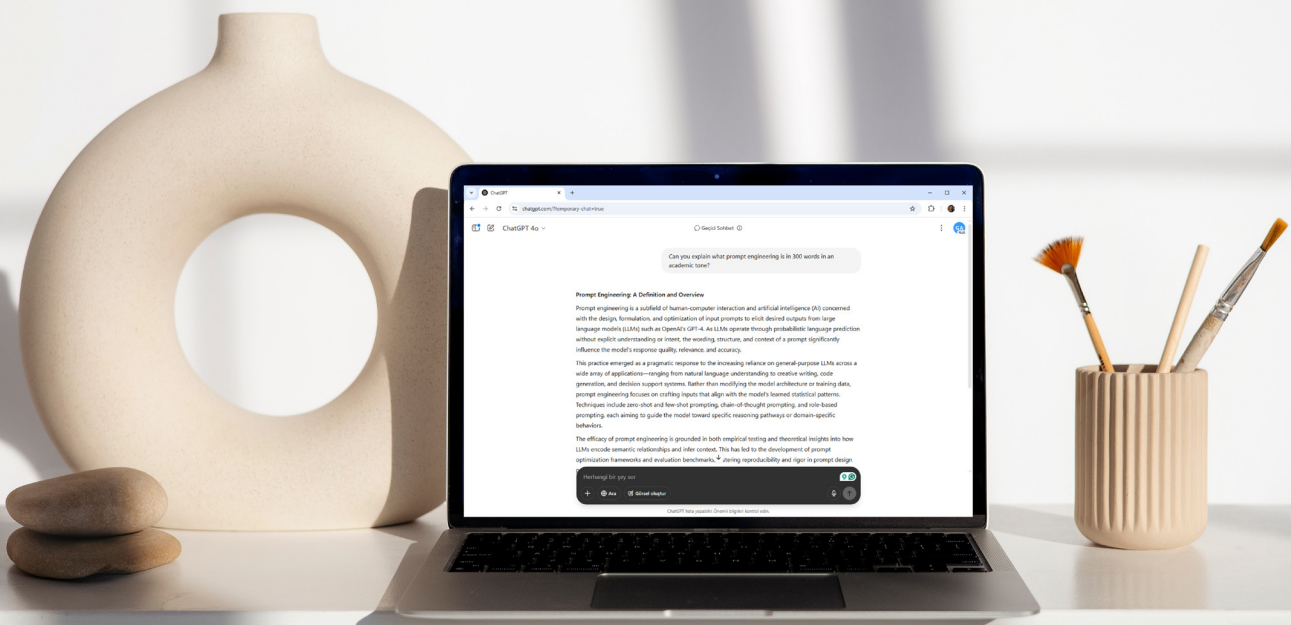
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<b>01</b>	Introduction	04
<b>02</b>	Why Prompt Engineering Matters	05
<b>03</b>	Principles & Strategies for Effective Prompt Engineering	06
<b>04</b>	Easy Step by Step: Crafting Your First Prompts	14
<b>05</b>	Conclusion	16

# INTRODUCTION

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Prompt engineering—the art and science of crafting inputs to generative AI—has rapidly emerged as a foundational skill in leveraging large language models (LLMs) for diverse applications. Since the emergence of generative AI, researchers and practitioners alike have recognized that the effectiveness of AI outputs hinges not only on model architectures and data, but equally on the creativity, clarity, and strategic design of the prompts themselves. This guideline provides a structured approach to prompt engineering, illustrating how to design prompts that maximize model performance while aligning with pedagogical goals such as language learning, sustainable development, and Socratic questioning.





## 1. Why Prompt Engineering Matters

Effective prompt engineering is crucial because it directly influences the quality, relevance, and ethical integrity of AI-generated outputs. By thoughtfully crafting prompts, practitioners can harness a model's strengths, mitigate potential pitfalls such as bias or hallucinations, and ensure that AI serves pedagogical objectives—especially when tackling complex themes like sustainable development and critical inquiry. This section outlines the key reasons why investing in prompt engineering is essential for responsible and impactful AI-assisted education.

### Unlocking Model Potential

Well-crafted prompts act as “wishes” that free generative AI from rigid algorithmic constraints, enabling richer, more context-aware responses.

### Reducing Hallucinations and Bias

Clear, precise prompts mitigate the risk of misleading or ethically problematic outputs, promoting Responsible AI practices in educational settings.

### Enhancing Pedagogical Impact

In language learning, leveraging Socratic prompts focused on Sustainable Development Goals (SDGs) fosters critical reflection, deeper comprehension, and transferable skills for global citizenship.

## 2. Principles & Strategies for Effective Prompt Engineering

Below are the **10 core principles** and **15 actionable strategies** drawn from the Prompt Engineering for Generative AI Framework. Each is accompanied by an example prompt on the topic of language learning, integrating SDGs and Socratic questioning.

### 2.1. Ten Principles

#### 01 | Explore and Comprehend the Model's Capabilities

Understand what the model can and cannot do to tailor your prompts accordingly.

**Example:**

*"As an AI language tutor familiar with the UN SDG 4 (Quality Education), outline three methods to help intermediate learners debate climate action in English."*

#### 02 | Give the Model Opportunity to Think and Reason

Break complex tasks into smaller steps to encourage chain-of-thought.

**Example:**

*"Step 1: Define 'sustainability' in simple English. Step 2: Ask three Socratic questions a teacher could use to deepen understanding."*





### 03 | Be Creative in Prompt Design

Use novel scenarios or metaphors to elicit engaging responses.

**Example:**

*"Imagine SDG 13 (Climate Action) as a journey; write a Socratic dialogue between a student and AI guide in English, exploring key vocabulary."*

### 04 | Consider Prompt Length

Balance detail with conciseness to avoid overwhelming the model.

**Example:**

*"In two sentences, ask the AI to compare renewable energy terms in English and their relevance to SDG 7."*

### 05 | Use Sequential Prompts and Iterative Refinement

Start broad, then narrow focus based on previous outputs.

**Example:**

**Prompt 1:** *"List five SDG-related topics for a classroom debate."*

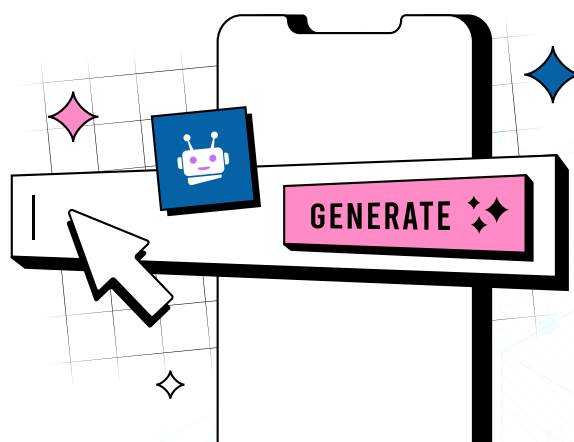
**Prompt 2:** *"Choose one and create Socratic questions to guide learners in English."*

### 06 | Fine-tune, Optimize, Refine, and Debug Prompts

Iteratively adjust wording or constraints to improve accuracy.

**Example:**

*"Rewrite the previous Socratic questions to avoid leading answers and ensure open-ended English responses."*



## 07 | Reverse the Interaction

Encourage the model to ask clarifying questions before answering.

**Example:**

*"Before teaching SDG 5 vocabulary, ask me three questions to understand my current English level."*

## 08 | Refine Grammar and Vocabulary While Maintaining Original Style

When improving student text, focus on correctness without altering voice.

**Example:**

*"Correct the grammar in this paragraph on SDG 2 (Zero Hunger) but preserve the student's informal tone."*

## 09 | Explicitly State Requirements

Specify formats, lengths, tones, or perspectives to align outputs with goals.

**Example:**

*"List five Socratic prompts (bullet points) for exploring SDG 6, each in fewer than 15 words."*

## 10 | Benchmark Different Generative AI Models

Compare outputs across models to select the most effective one.

**Example:**

*"Using GPT-3.5 and GPT-4, generate an English Socratic dialogue on SDG 12, then highlight differences."*





## 2.2. Fifteen Strategies

### 01 | Define Your Objective

Clarify the goal to focus the model's response.

**Example:**

*"Objective: Teach vocabulary for SDG 14 (Life Below Water) through Socratic questioning in English."*

### 02 | Be Clear, To the Point, and Precise

Avoid ambiguity by detailing steps or desired outcomes.

**Example:**

*"List three English questions that a teacher might ask to explore 'sustainable fisheries' with students."*

### 03 | Assign a Role or Persona

Frame the model as an expert or student to shape tone and depth.

**Example:**

*“You are an English tutor specializing in SDG 11 (Sustainable Cities). Ask five Socratic questions.”*



### 04 | Provide Contextual Background

Include relevant information so the model generates informed responses.

**Example:**

*“Context: Students have just read an article on SDG 3 (Good Health). Frame Socratic prompts to discuss public health vocabulary.”*

### 05 | Use Key Concepts or Keywords

Embed crucial terms to guide the model’s focus.

**Example:**

*“Incorporate ‘renewable’, ‘ecosystem’, and ‘resilience’ into English questions for SDG 15 (Life on Land).”*

## 06 | Identify the Scope

Specify what to include or exclude to narrow the topic.

### Example:

*“Generate Socratic questions about SDG 9 (Industry, Innovation, Infrastructure) only focusing on ‘innovation’”*

## 07 | Explain the Length

State desired response length for clarity.

### Example:

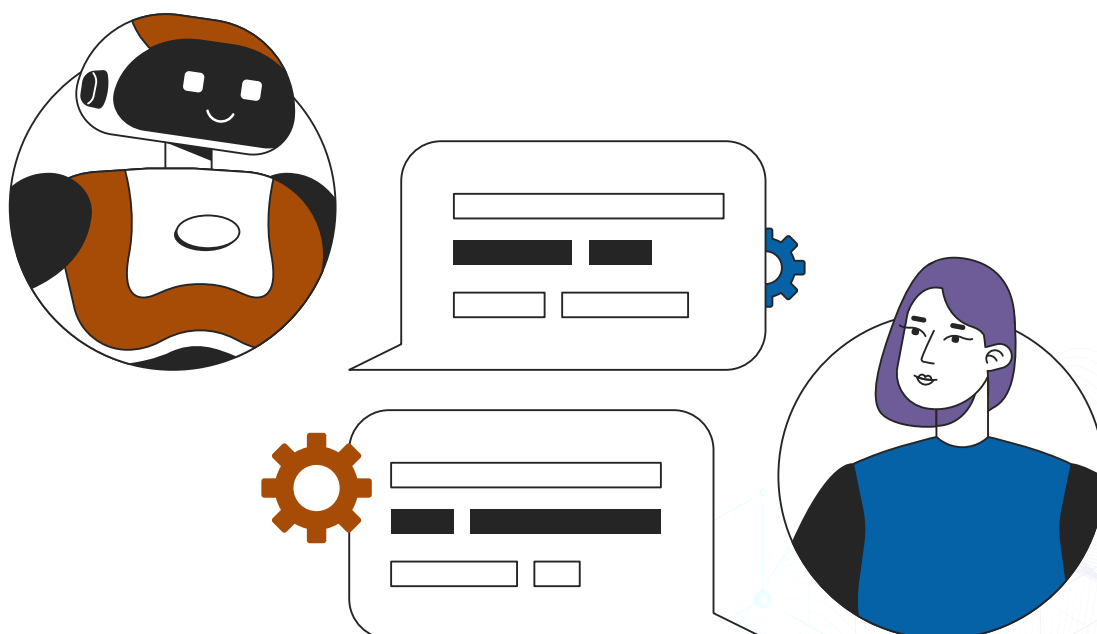
*“Provide two-sentence Socratic questions about SDG 8 (Decent Work) suitable for A2 English learners.”*

## 08 | Set the Tone

Direct the desired style (e.g., formal, conversational).

### Example:

*“Write three casual, conversational English prompts discussing SDG 1 (No Poverty)”*

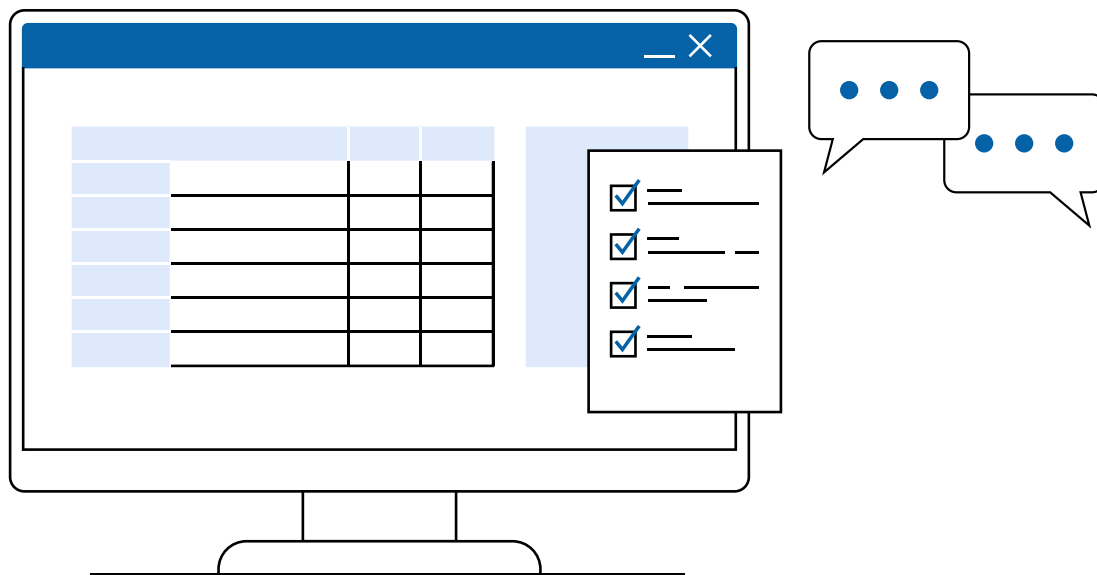


## 09 | Specify the Format

Request lists, dialogues, tables, etc., to structure outputs.

**Example:**

*“Create a three-column table: English question, SDG alignment, and follow-up Socratic probe.”*



## 10 | Guide with Examples or Templates

Show a sample to model the expected response style.

**Example:**

*“Example: ‘What challenges do you foresee in achieving SDG 2?’ Now draft four similar questions.”*

## 11 | Identify the Target Group or Audience

Tailor language complexity to learner proficiency.

**Example:**

*“Asking a B1-level student: pose five Socratic questions on SDG 10 (Reduced Inequalities).”*

## 12 | Ask for Proofs

Encourage citation or evidence to ground responses.

### Example:

*“Provide an English Socratic prompt on SDG 17 (Partnerships) and include one referenced statistic.”*

## 13 | Require Points of View or Perspectives

Solicit multiple viewpoints for balanced discussion.

### Example:

*“Ask two Socratic questions from a policymaker’s and two from a community activist’s perspective on SDG 16 (Peace).”*

## 14 | Request Discussing the Output

Have the model critique its own response to deepen analysis.

### Example:

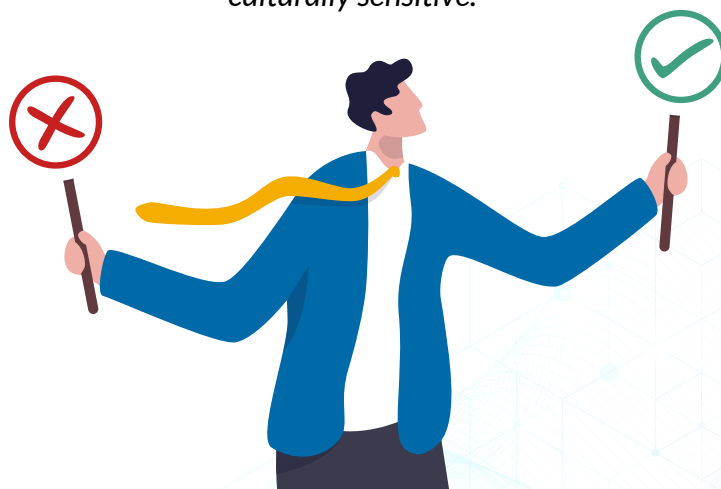
*“After listing Socratic prompts on SDG 13, ask the model to evaluate their effectiveness and suggest improvements.”*

## 15 | Be Committed to Being Ethical, Sensitive, and Unbiased

Embed ethical guidelines to avoid insensitive or biased content.

### Example:

*“Formulate English Socratic questions on SDG 5 that are gender-inclusive and culturally sensitive.”*





### 3. Easy Step by Step: Crafting Your First Prompts

This hands on guide is for busy teachers and curious learners who are new to generative AI. Follow these six friendly steps to create useful prompts. The running example practises English while discussing Sustainable Development Goal 3 (Good Health and Well Being).

#### 01 | Decide Your Learning Goal

**Example Goal:**

*“Students talk about healthy living in English for three minutes.”*

#### 02 | Write a First Draft Prompt

Keep it short and clear:

**Example:**

*“You are a helpful English partner. Ask me three questions about healthy living.”*



### 03 | Add Helpful Details

Tell the AI who it is talking to and what style you prefer:

**Example:**

*"You are a friendly English partner talking to a 14 year old learner. Ask three short questions about healthy living using everyday words."*

### 04 | Try It Out and Tweak

Paste the prompt into the AI. If the questions are too hard or too easy, adjust your wording:

**Example:**

*"Make the questions simpler and give me one sample answer."*

### 05 | Invite the AI to Improve the Prompt

Let the model coach you:

**Example:**

*"Rewrite this prompt so it's clearer and more fun for a group activity."*

### 06 | Save and Re-use

Keep a notebook or shared document of prompts that work well, along with notes like:

**Example:**

*"Great warm up" or "Use with A2 level."*



#### **Quick Variation for Socratic Questioning**

Want deeper thinking? Add this line:

*"Start each question with 'Why...?' or 'How do you know...?'  
so I have to explain my reasoning."*

## 4. Conclusion

Prompt engineering sits at the nexus of creativity, pedagogy, and technical acumen. By adhering to the principles and strategies outlined above, educators and AI practitioners can design prompts that not only harness the full potential of generative models but also foster meaningful language learning experiences centered on global challenges and critical inquiry. As you and your students keep experimenting, revisit and remix these guidelines, share your discoveries, and inspire one another—so prompt engineering stays a hands on, creative practice that unlocks the full potential of both AI and human imagination.

## Reference

Bozkurt, A. (2024). Tell Me Your Prompts and I Will Make Them True: The Alchemy of Prompt Engineering and Generative AI. *Open Praxis*, 16(2), 111–118. <https://doi.org/10.55982/openpraxis.16.2.661>

