**Japanese Sentence Constructor**

**Difficulty:** Level 100

**Business** **Goal:**

A chat agent that acts as a teaching assistant to guide students from translating a target English sentence into Japanese. The teaching assistant is not there to provide the direct answer, only guidance.

Will AI-Powered Assistants replace real teachers?

**Technical Uncertainty**

1. How well can an AI-Powered Assistant perform a very broad task?
2. Would a very broad task be better performed by dividing it into subtasks with specialized agents?
3. Does using an AI-Powered Assistant make for a good place to rapidly prototype agents?
4. How could we take the agent we built in an AI-Powered Assistant and reimplement it into a stack that allows for direct integration into our platform?
5. How much do we have to rework our prompt documents from one AI-Powered Assistant to another?
6. What prompting techniques can we naturally discover working in the confines of an AI-Powered Assistant?
7. Are there any interesting innovations unique to specific AI-Powered Assistants for our business goal?
8. What were we able to achieve based on our AI-Powered Assistant choice and our hardware, or budget limitations?

**Technical Restrictions**

* An AI-Powered Assistant of the developer’s choice must be used eg:
  + Meta AI https://www.meta.ai/
  + ChatGPT https://openai.com/index/chatgpt/
  + Anthropic Claude https://www.anthropic.com/claude
  + Mistral AI https://mistral.ai/
  + \*Ollama + Open WebUI https://openwebui.com/
  + \*LibreChat https://www.librechat.ai/
  + Leon <https://github.com/leon-ai/leon>

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| Meta AI | https://www.meta.ai/ | FREE (cloud) |
| Mistral AI | https://mistral.ai/ | FREE (cloud) |
| Ollama + Open WebUI | <https://openwebui.com/>  <https://ollama.com/> | FREE (Local) |
| Anthropic Claude |  | FREE but limited  Paid ~30 USD |
| ChatGPT |  | FREE but limited  Paid 20 USD |
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**📌 Business Goal: AI-Powered Teaching Assistant**

✅ The AI will **guide students** in translating English sentences into Japanese.  
✅ Instead of **providing direct translations**, it will **offer hints and explanations** to help students learn.  
✅ The goal is to **test AI’s effectiveness** as a learning tool.

**💡 Key Technical Questions (Uncertainty & Research Goals)**

This section explores whether AI is the right tool for this broad task and what challenges might arise.

1️⃣ **How broad can an AI assistant’s capabilities be?**

* Can a single AI handle **all aspects of translation guidance**, or is it too complex?

2️⃣ **Should we use multiple specialized AI agents?**

* Would breaking the task into **subtasks** (grammar, vocabulary, structure) lead to better results?

3️⃣ **Can an AI assistant help prototype educational agents quickly?**

* Would this tool help **experiment and improve AI tutors faster**?

4️⃣ **How can we integrate AI into our platform?**

* If the AI works well, **how do we build it into a real product**?

5️⃣ **Do we need to rewrite prompts when switching AI models?**

* Will changing AI models require **new prompts**, or can the same instructions work across platforms?

6️⃣ **What AI prompting techniques can we discover?**

* By testing AI, can we **find better ways to guide responses** through smart prompting?

7️⃣ **Are certain AI tools better suited for teaching Japanese?**

* Do some AI assistants **perform better** than others for this task?

8️⃣ **What were our AI limitations?**

* **How much did AI performance depend on budget, hardware, or the chosen AI model?**

**⚙️ Technical Restrictions (AI Model Choices)**

The document states that **developers must use an existing AI assistant** from the list:

✅ **Cloud-based AIs (No setup required):**

* **Meta AI** (Free)
* **Mistral AI** (Free)
* **Anthropic Claude** (Free limited / Paid ~$30)
* **ChatGPT** (Free limited / Paid ~$20)

✅ **Local AIs (Need installation & setup):**

* **Ollama + Open WebUI** (Free, runs on your machine)
* **LibreChat** (Free)
* **Leon** (Open-source, self-hosted)

**🔍 Summary: What This Means for You**

1️⃣ You are building an **AI tutor** that **guides, not answers**.  
2️⃣ You must decide if **one AI** can handle everything or if **specialized AI agents** are better.  
3️⃣ You must **experiment with different AI models** to see which works best.  
4️⃣ If the AI works well, you need to plan **how to integrate it into a real platform**.  
5️⃣ You should test **different prompting techniques** to improve AI responses.  
6️⃣ You must choose an **AI tool** from the list based on **cost, performance, and ease of use**.