

Zero Shot vs. Few Shot

A Comparative Analysis of Prompt Techniques

ZERO-SHOT PROMPTING	BASIS OF DIFFERENCE	FEW-SHOT PROMPTING
Zero-shot prompting is a technique that allows a model to make predictions on unseen data without requiring additional training.	Definition	Few-shot prompting involves guiding the model on a small amount of task-specific data to fine-tune its performance.
No task-specific training data is required. The model relies on its pre-trained knowledge and reasoning abilities.	Training Approach	Requires a limited amount of task-specific training data, usually a few labeled examples.
High flexibility since it can handle a wide range of tasks without additional training.	Flexibility	Moderately flexible, as it requires some task-specific data but can still adapt to different tasks with limited examples.
Limited control over the output as the model relies on its pre-trained knowledge.	Control	More control and customization over the output as the model can be refined based on specific examples or data.
Fast response generation as the model uses its pre-trained knowledge to generate outputs.	Speed and Responsiveness	Slightly slower response generation compared to zero-shot prompting due to the fine-tuning process.
Faster training time as no model optimization is needed.	Training Time	Longer training time compared to zero-shot, but still quicker than full training from scratch.
When specific training data is unavailable or when rapid experimentation is required.	Applicability	When there is a need for task-specific customization or when the available training data is limited.

Sources

<https://www.inovex.de/de/blog/prompt-engineering-guide/>

<https://developer.dataiku.com/latest/tutorials/machine-learning/genai/nlp/byom-few-shot/index.html>

<https://pub.towardsai.net/zero-shot-vs-few-shot-learning-50-key-insights-with-2022-updates-17b71e8a88c5>

<https://www.promptengineering.org/master-prompting-concepts-zero-shot-and-few-shot-prompting/#:~:text=Zero%20Dshot%20prompting%20is%20insufficient,providing%20additional%20context%20and%20examples>