

Modelos de Linguagem Neurais

Treinando Transformers

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Treinamento de modelos de linguagem

Pré-treinamento

Treinamento continuado

Extração de features

Fine-tuning

Aprendizado com reforço

"Aprendizado" em contexto

Treinamento de modelos de linguagem

Pré-treinamento

Treinamento continuado

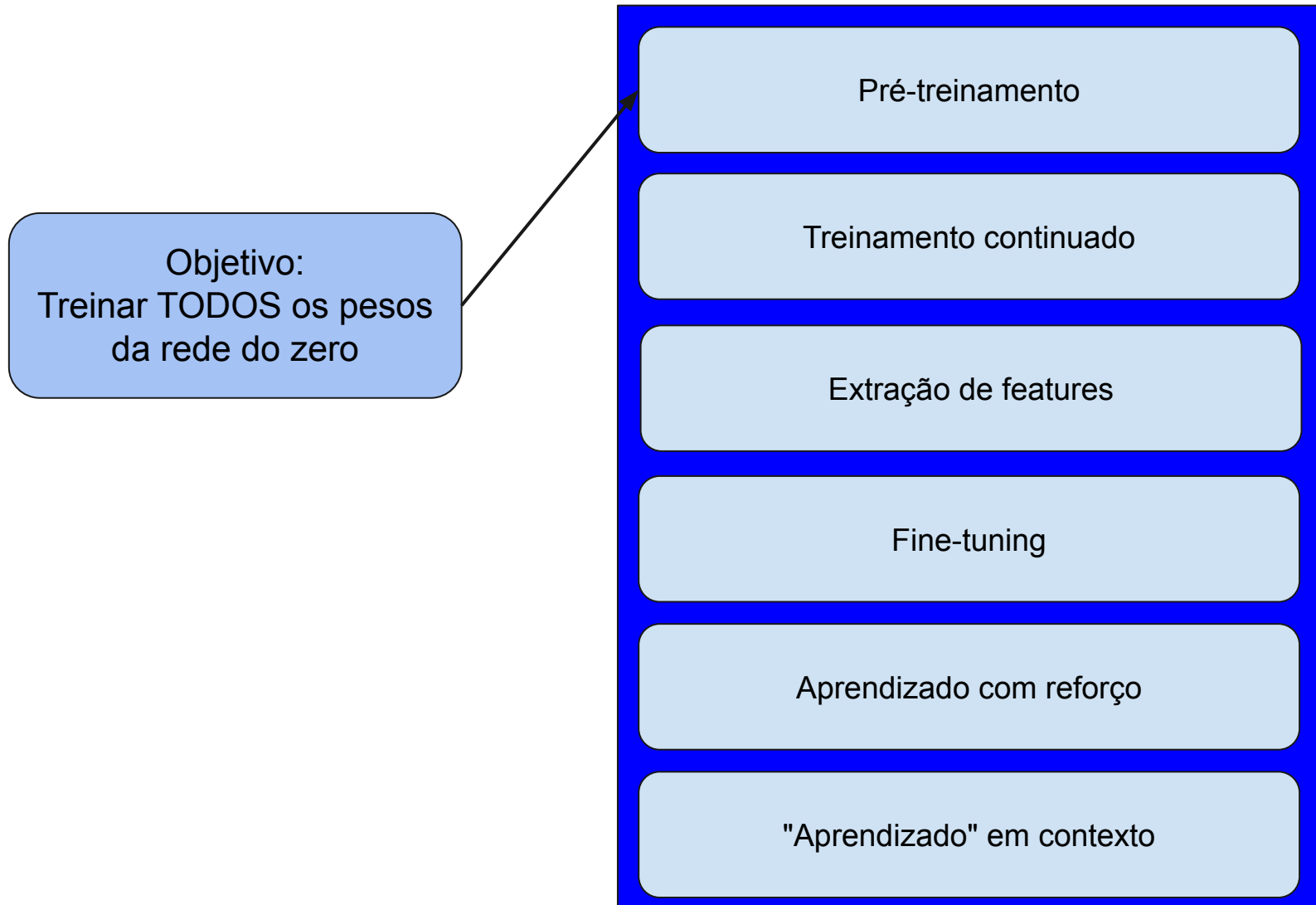
Extração de features

Fine-tuning

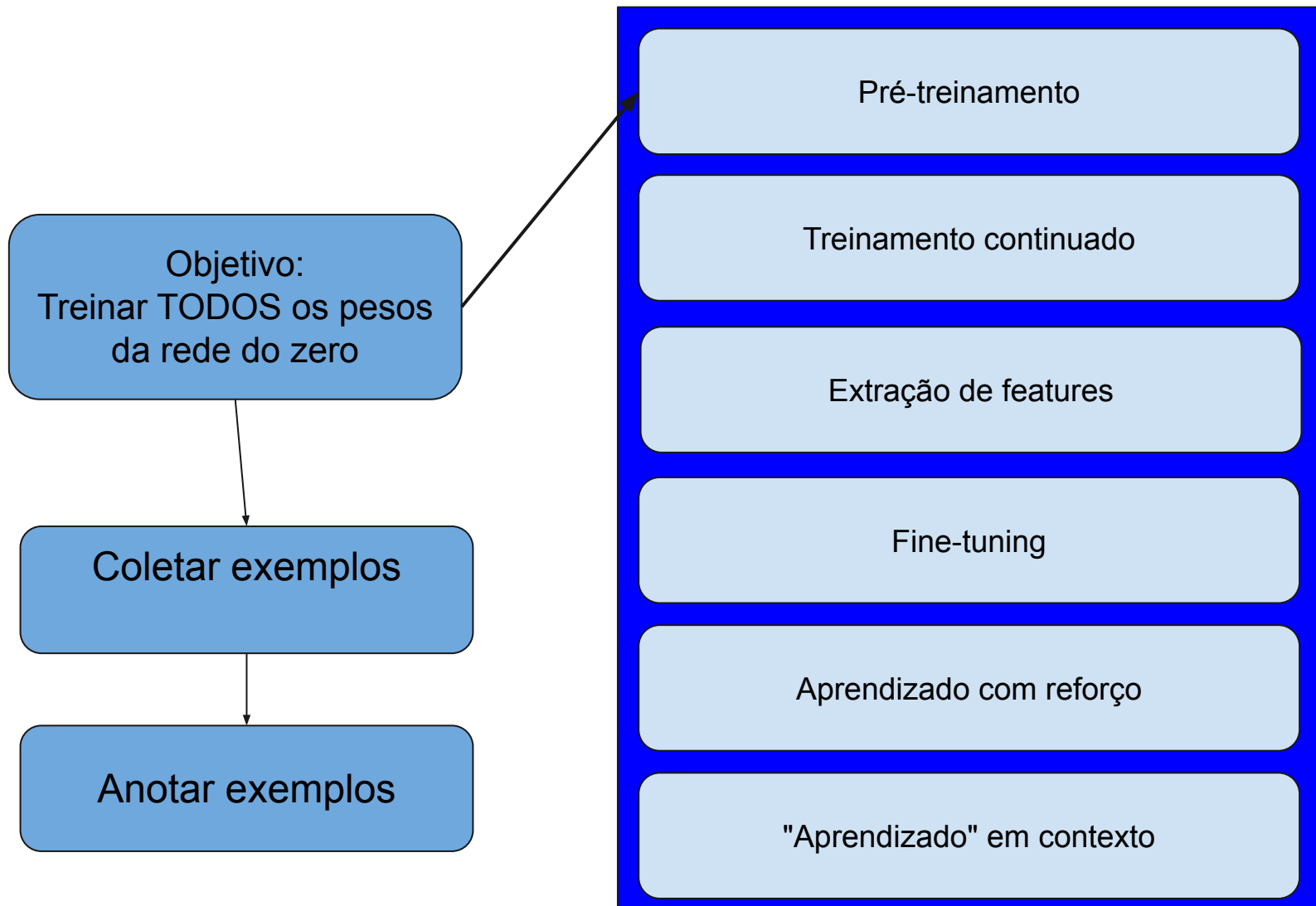
Aprendizado com reforço

"Aprendizado" em contexto

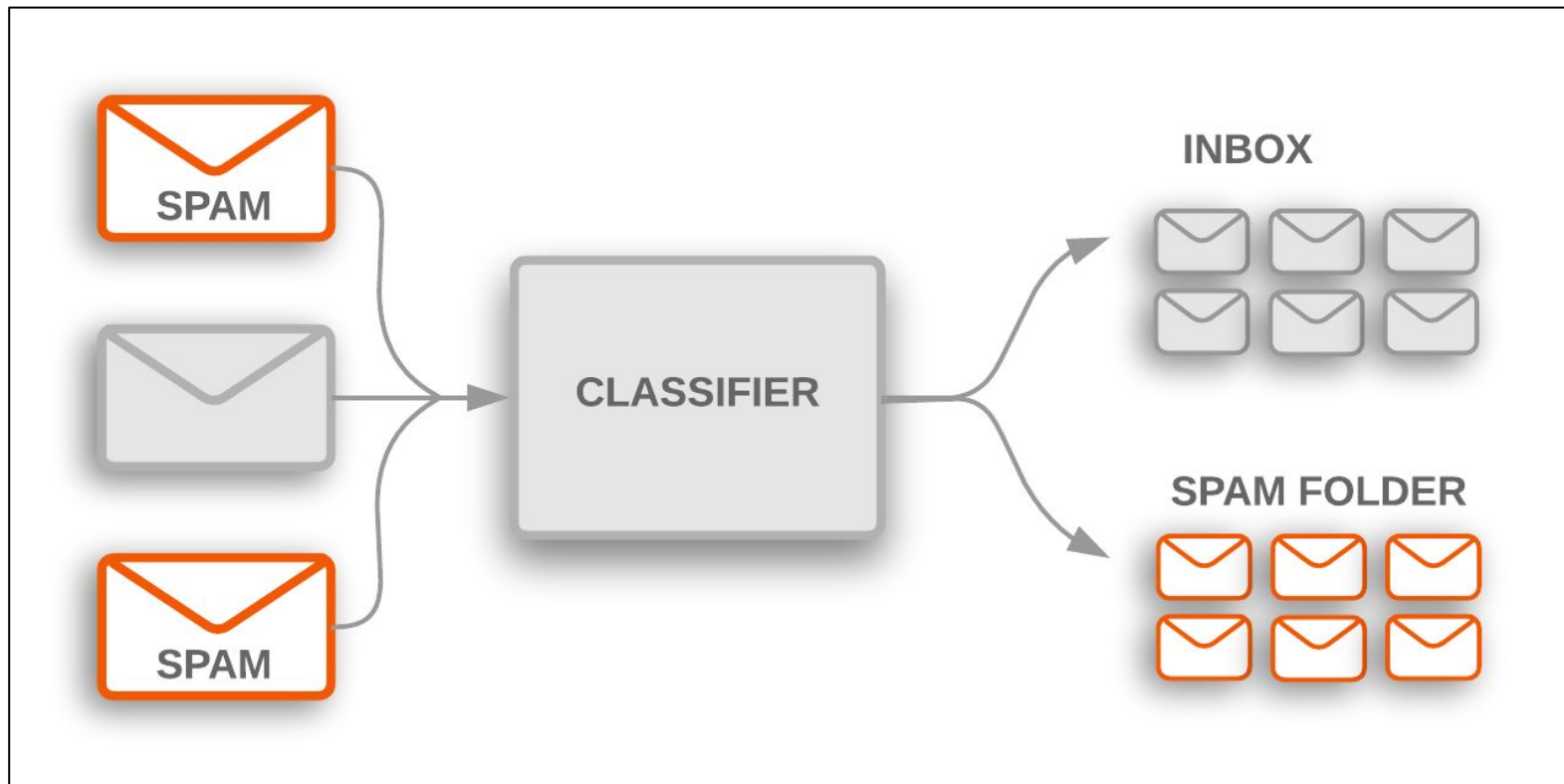
Treinamento de modelos de linguagem



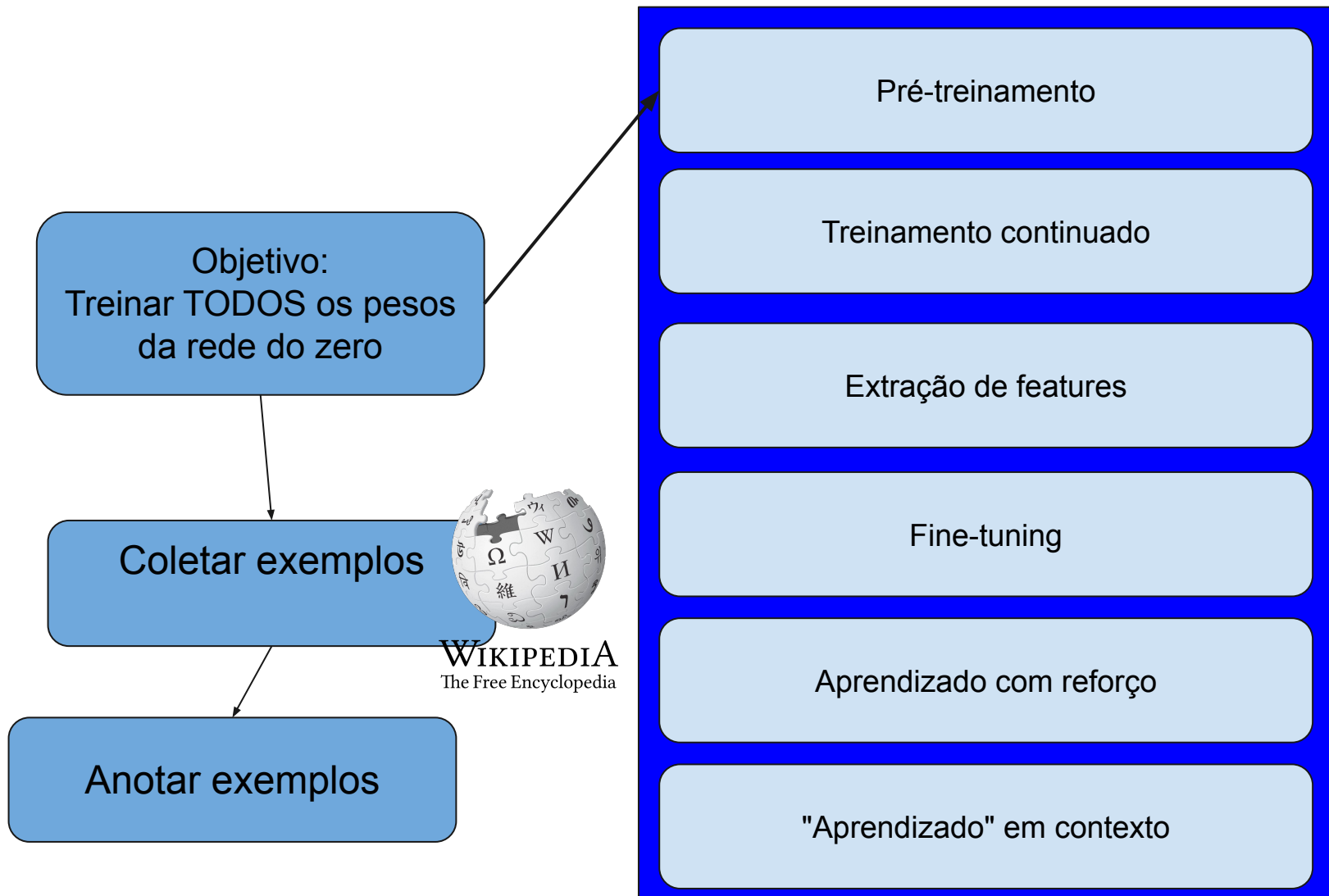
Treinamento de modelos de linguagem



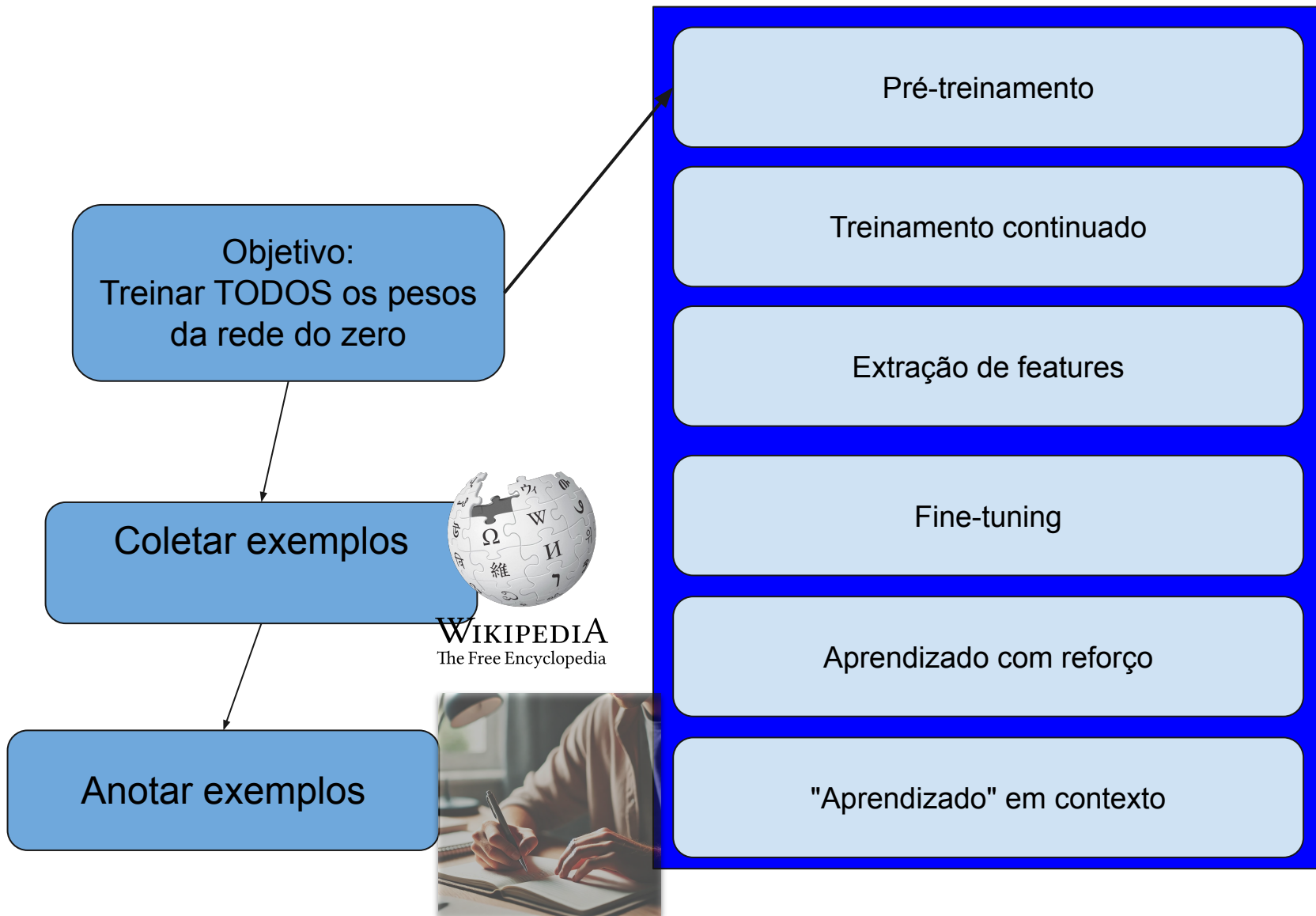
Treinamento de modelos



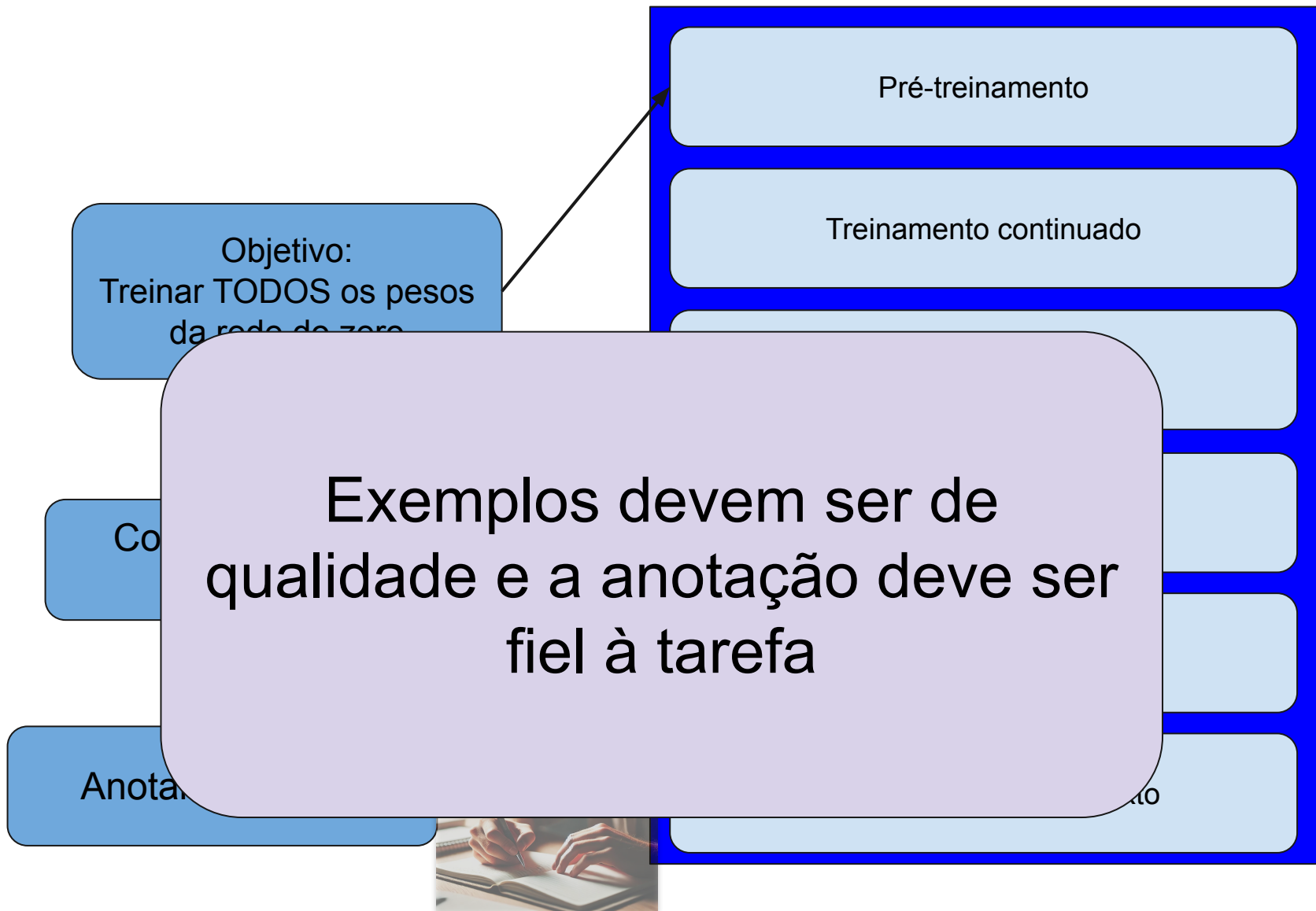
Treinamento de modelos de linguagem



Treinamento de modelos de linguagem

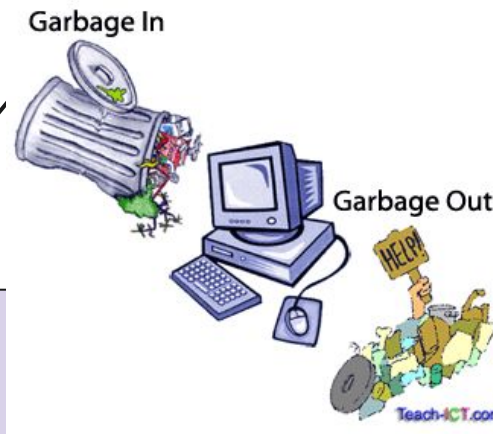


Treinamento de modelos de linguagem



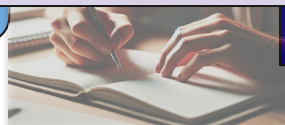
Treinamento de modelos de linguagem

Objetivo:
Treinar TODOS os pesos
da rede de zero



Exemplos devem ser de
qualidade e a anotação deve ser
fiel à tarefa

Anotar



Pré-treinamento

le features

Treinamento de modelos de linguagem

Exemplos devem ser de
qualidade e a anotação
deve ser fiel à tarefa:
custoso



Pré-treinamento

Treinamento continuado

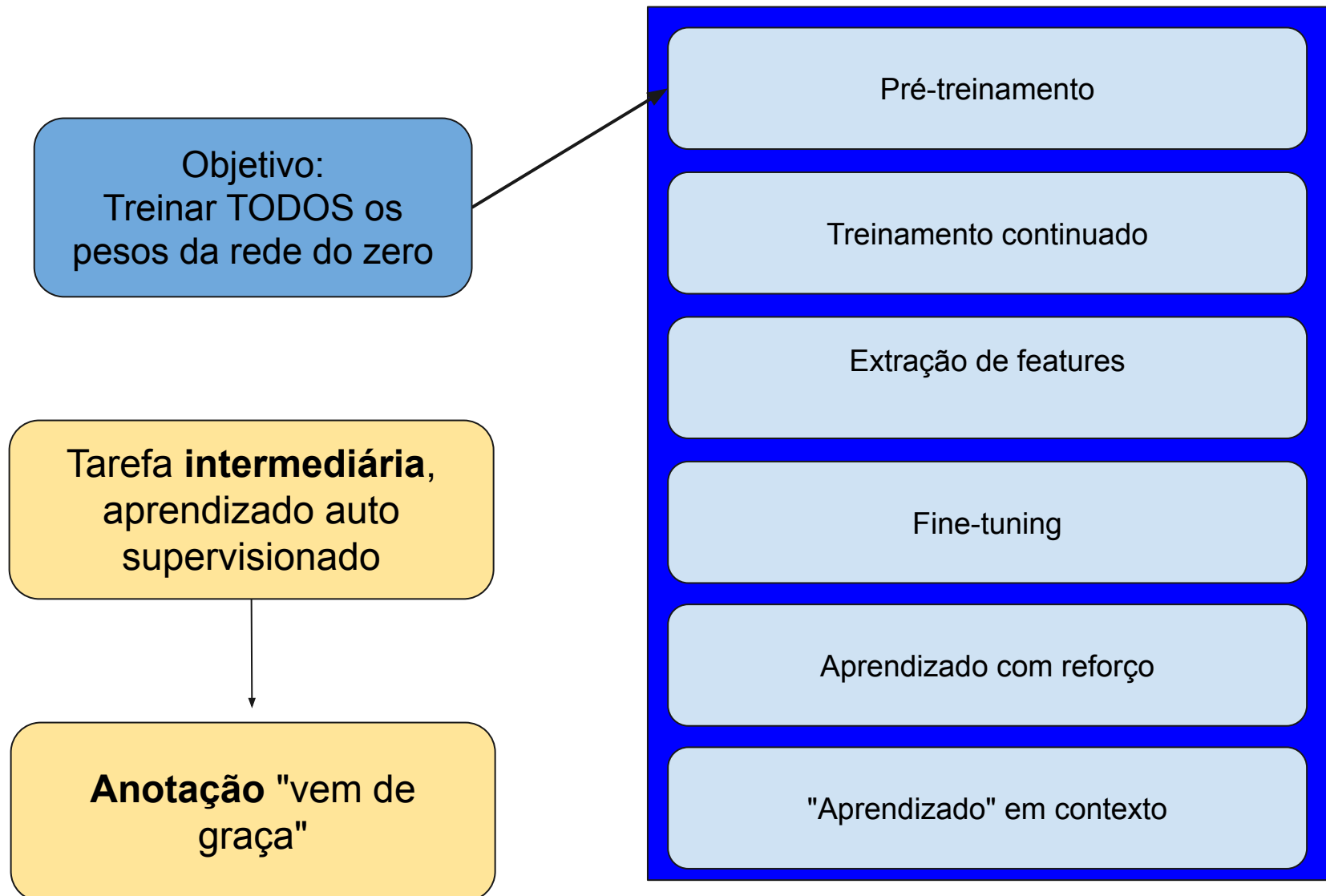
Extração de features

Fine-tuning

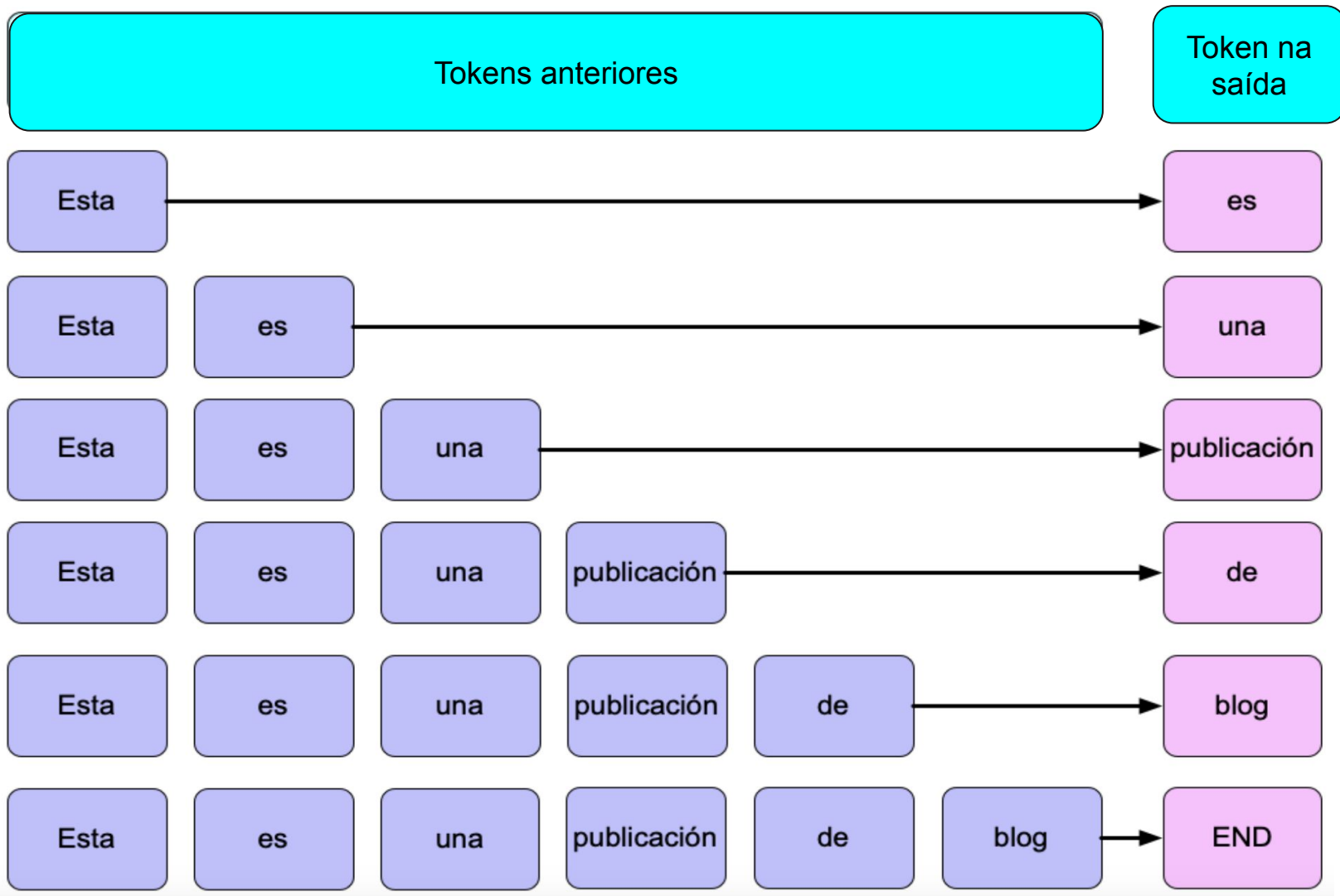
Aprendizado com reforço

"Aprendizado" em contexto

Treinamento de modelos de linguagem



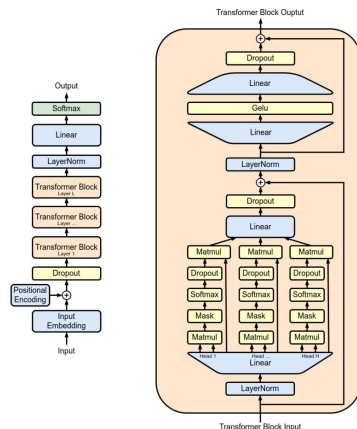
Tarefa intermediária: autorregressiva



Treinamento de modelos de linguagem

Objetivo:
Treinar TODOS os pesos
da rede do zero

Tarefa **intermediária**,
aprendizado auto
supervisionada



Pré-treinamento

Treinamento continuado

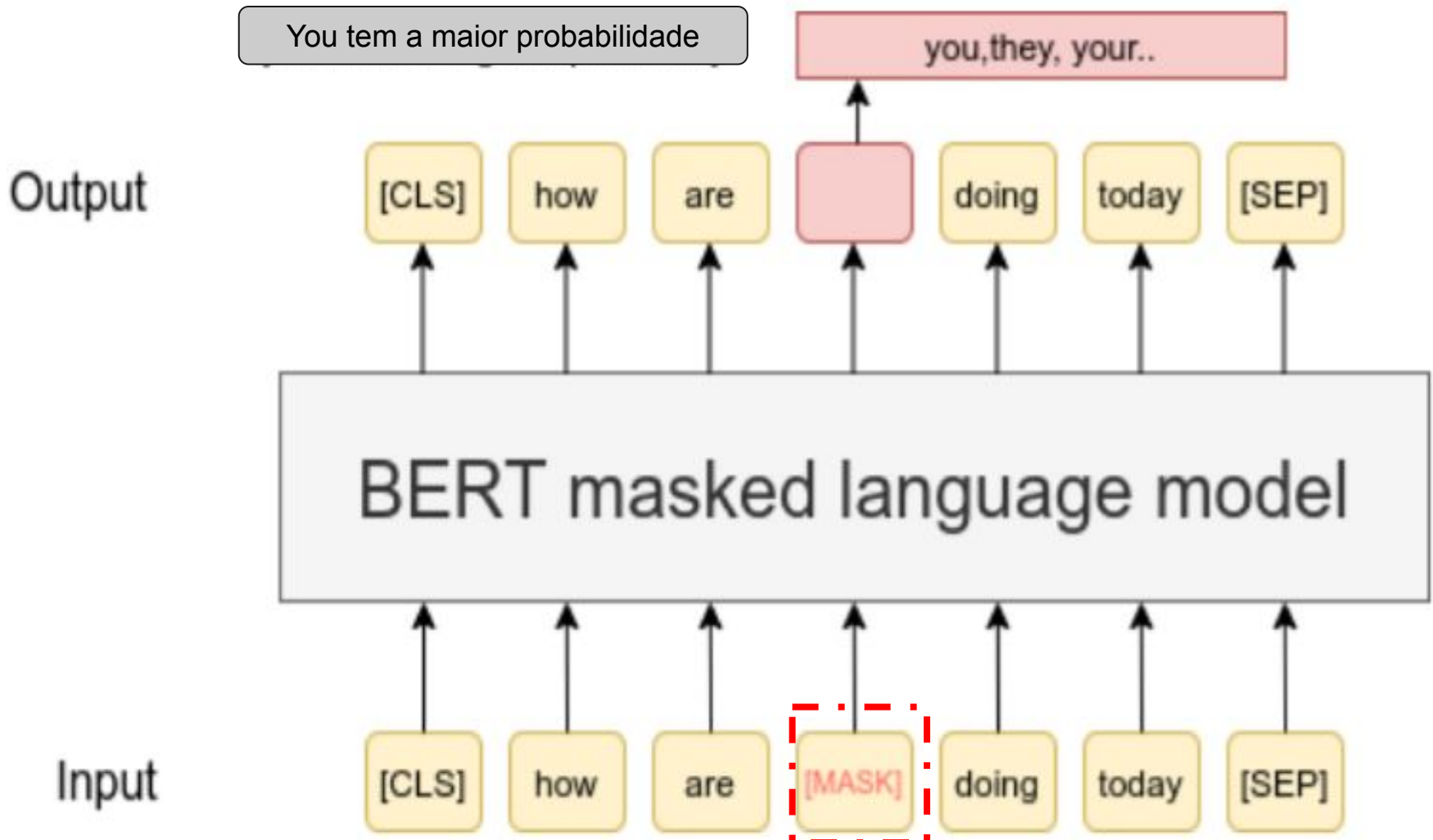
Extração de features

Fine-tuning

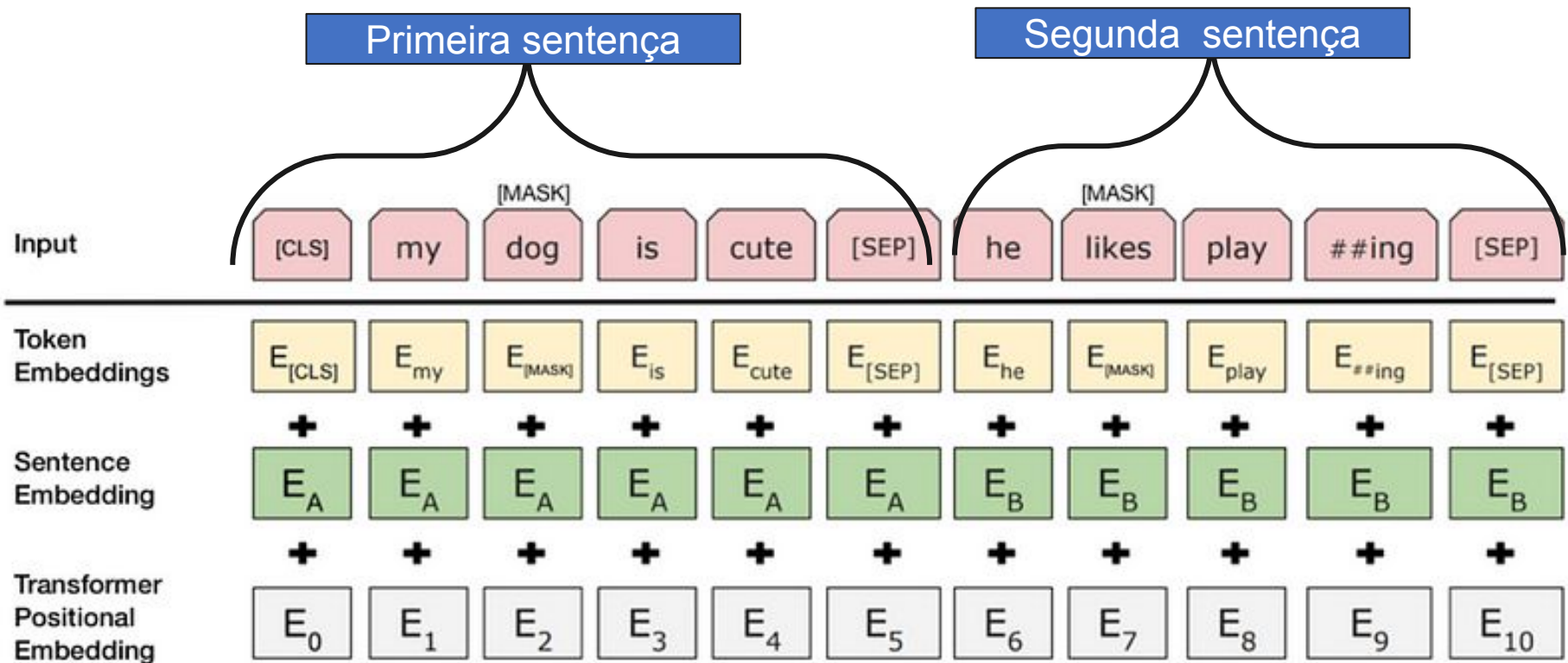
Aprendizado com reforço

"Aprendizado" em contexto

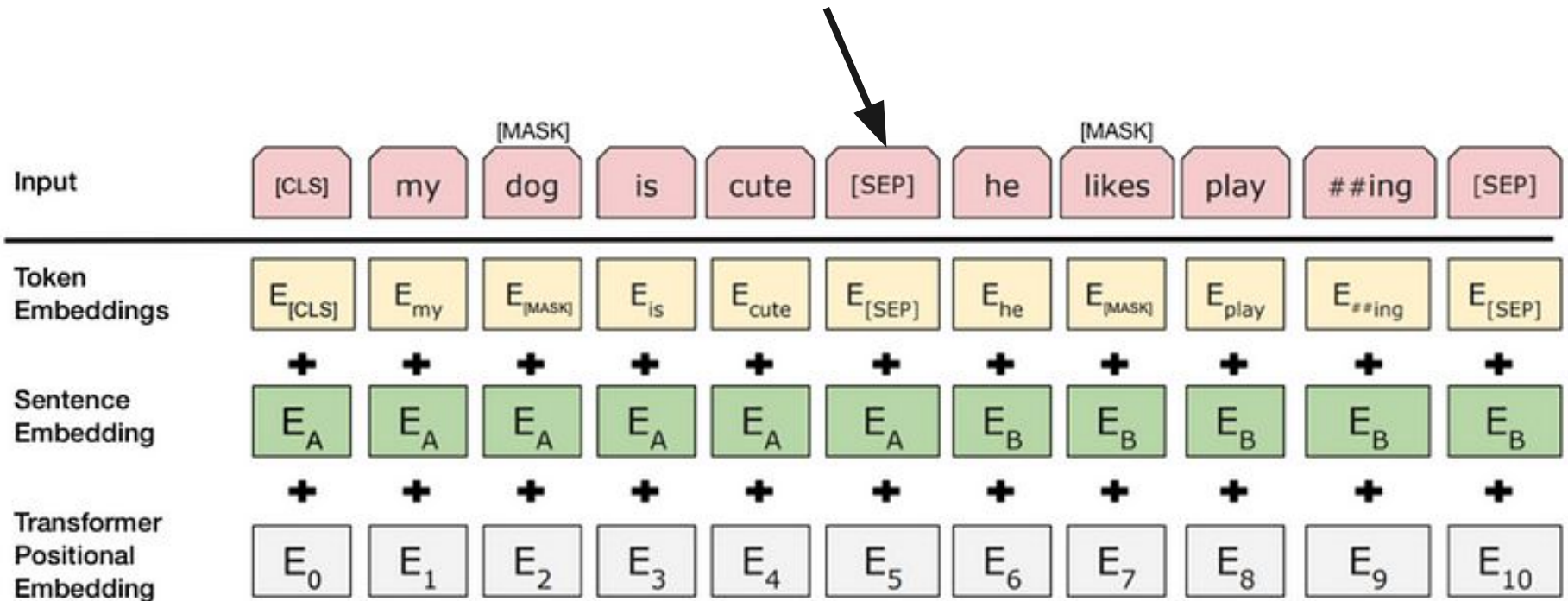
Tarefa intermediária: MLM



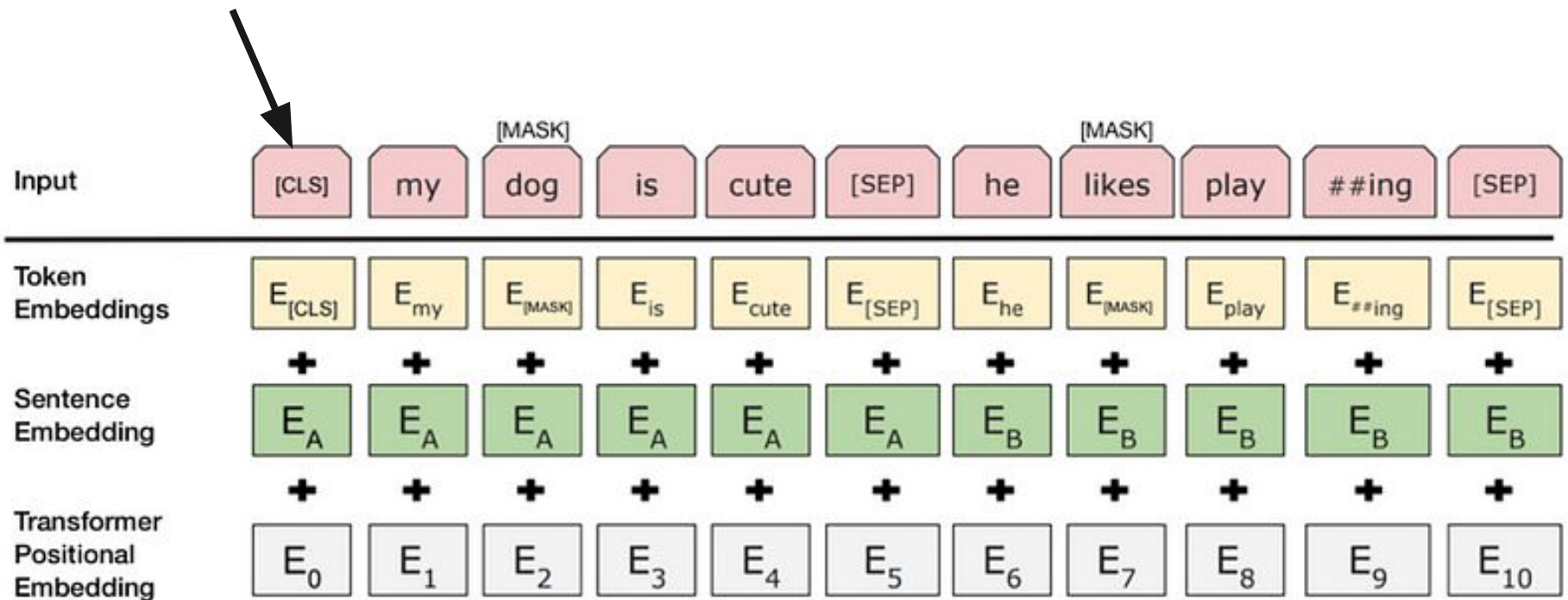
Tarefa intermediária: Next Sentence prediction



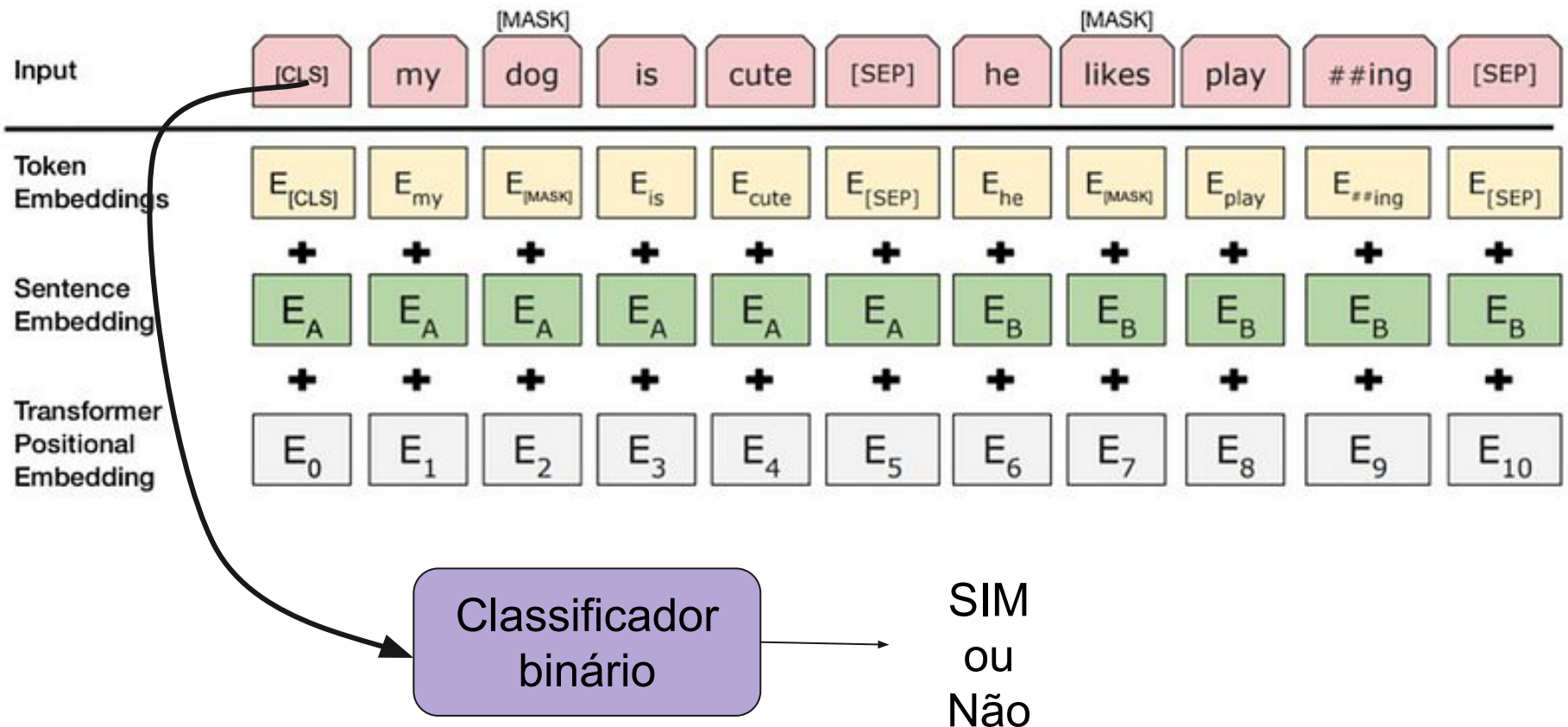
Tarefa intermediária: Next Sentence prediction



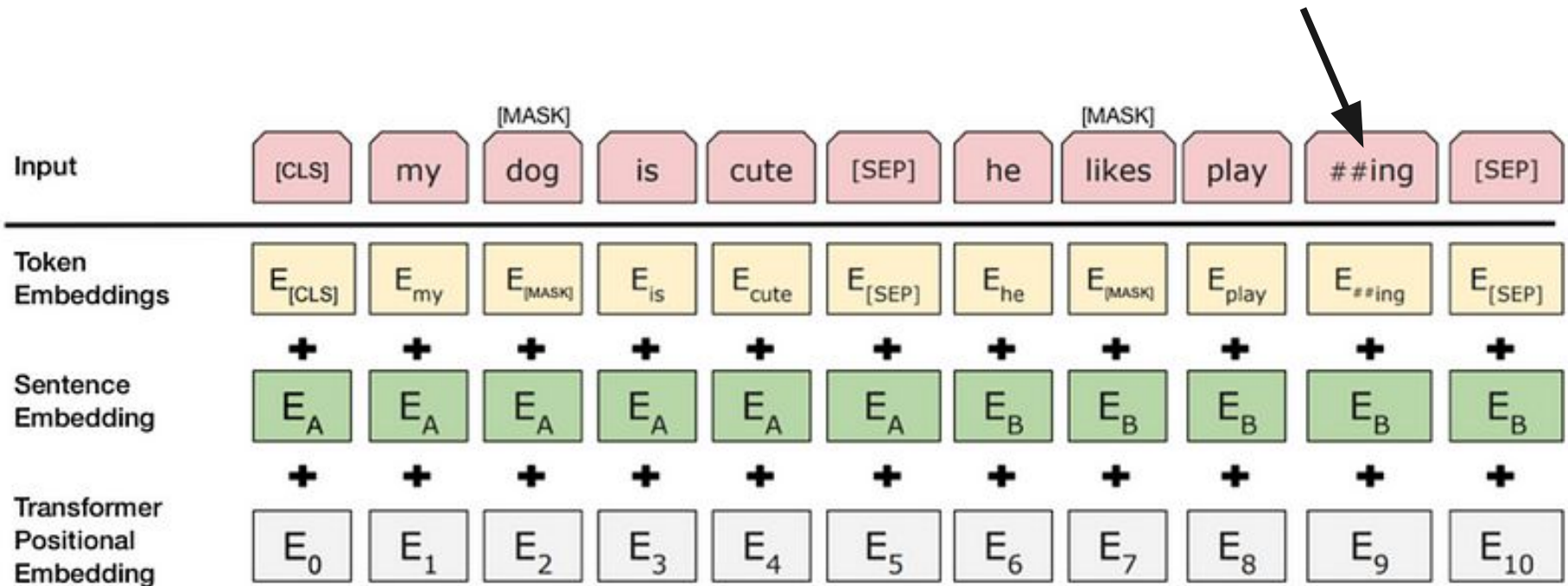
Tarefa intermediária: Next Sentence prediction



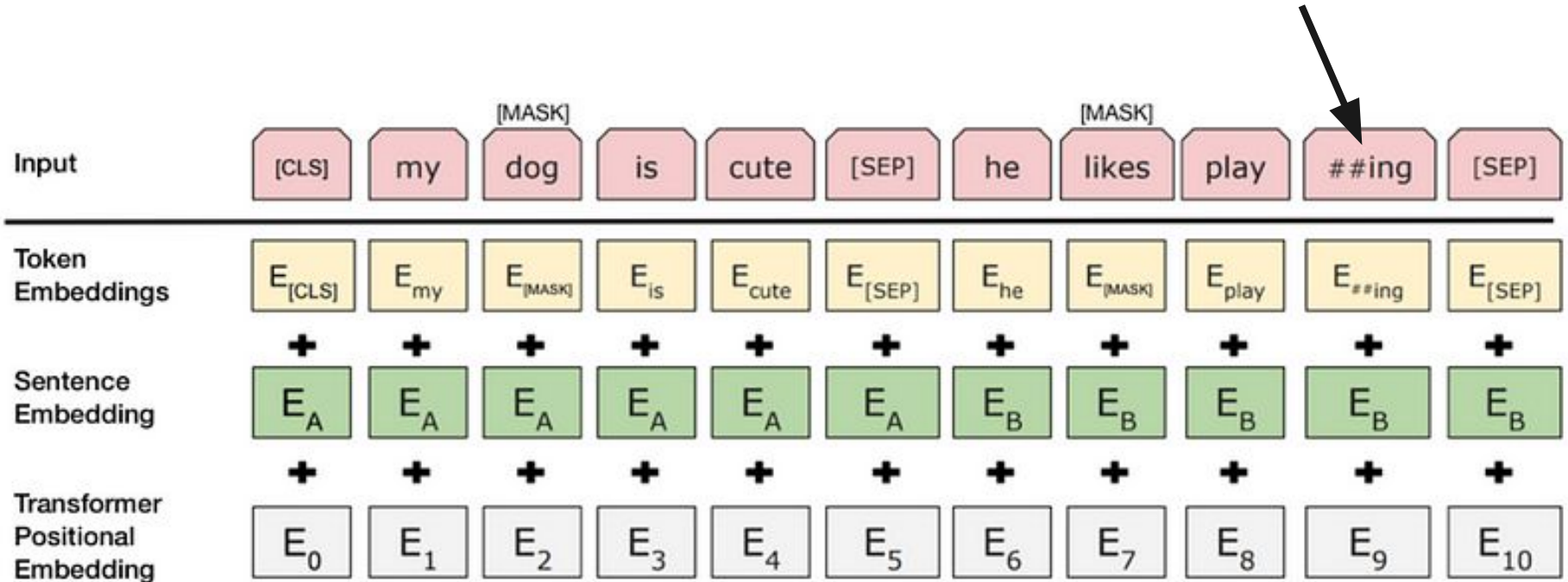
Tarefa intermediária: Next Sentence prediction



Tarefa intermediária: Next Sentence prediction



Tarefa intermediária: Next Sentence prediction

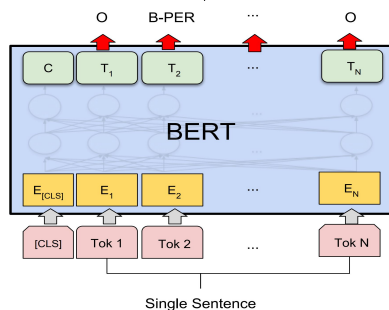


Camada de entrada: 512 tokens
Cada embedding tem 768 (base) / 1024 (large)
neurônios em cada camada escondida

Treinamento de modelos de linguagem

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Tarefa **intermediária**,
aprendizado auto
supervisionado



Pré-treinamento

Treinamento continuado

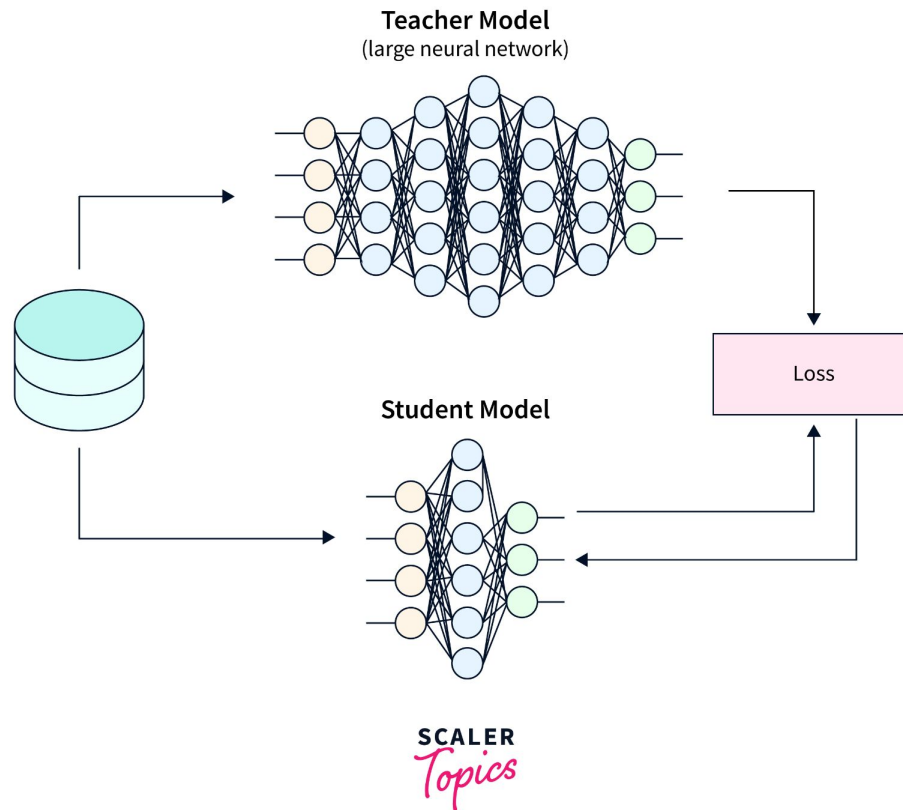
Extração de features

Fine-tuning

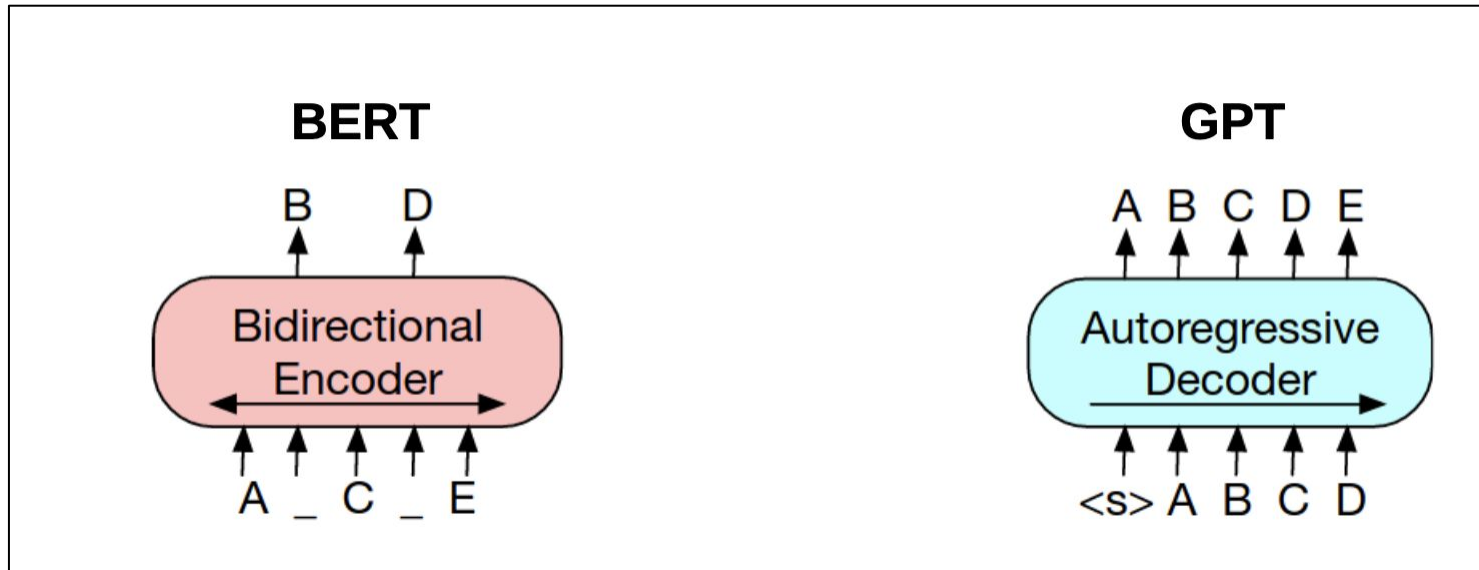
Aprendizado com reforço

"Aprendizado" em contexto

DistilBERT

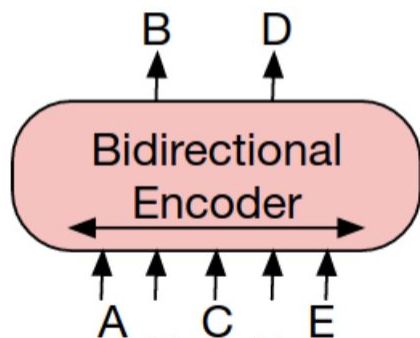


BART

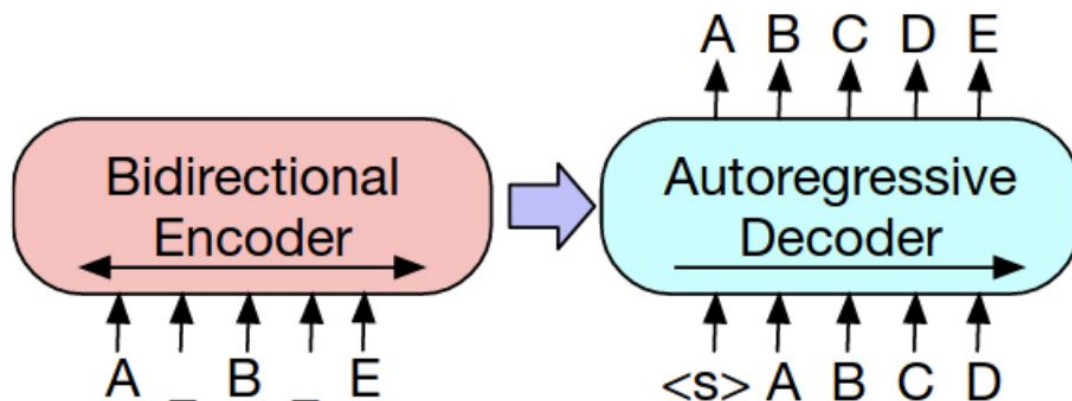
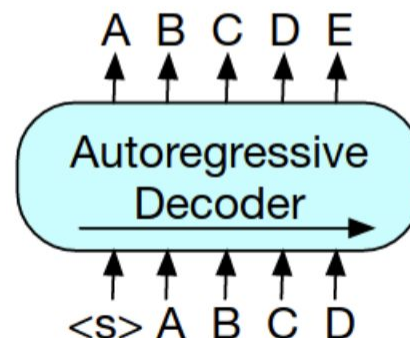


BART

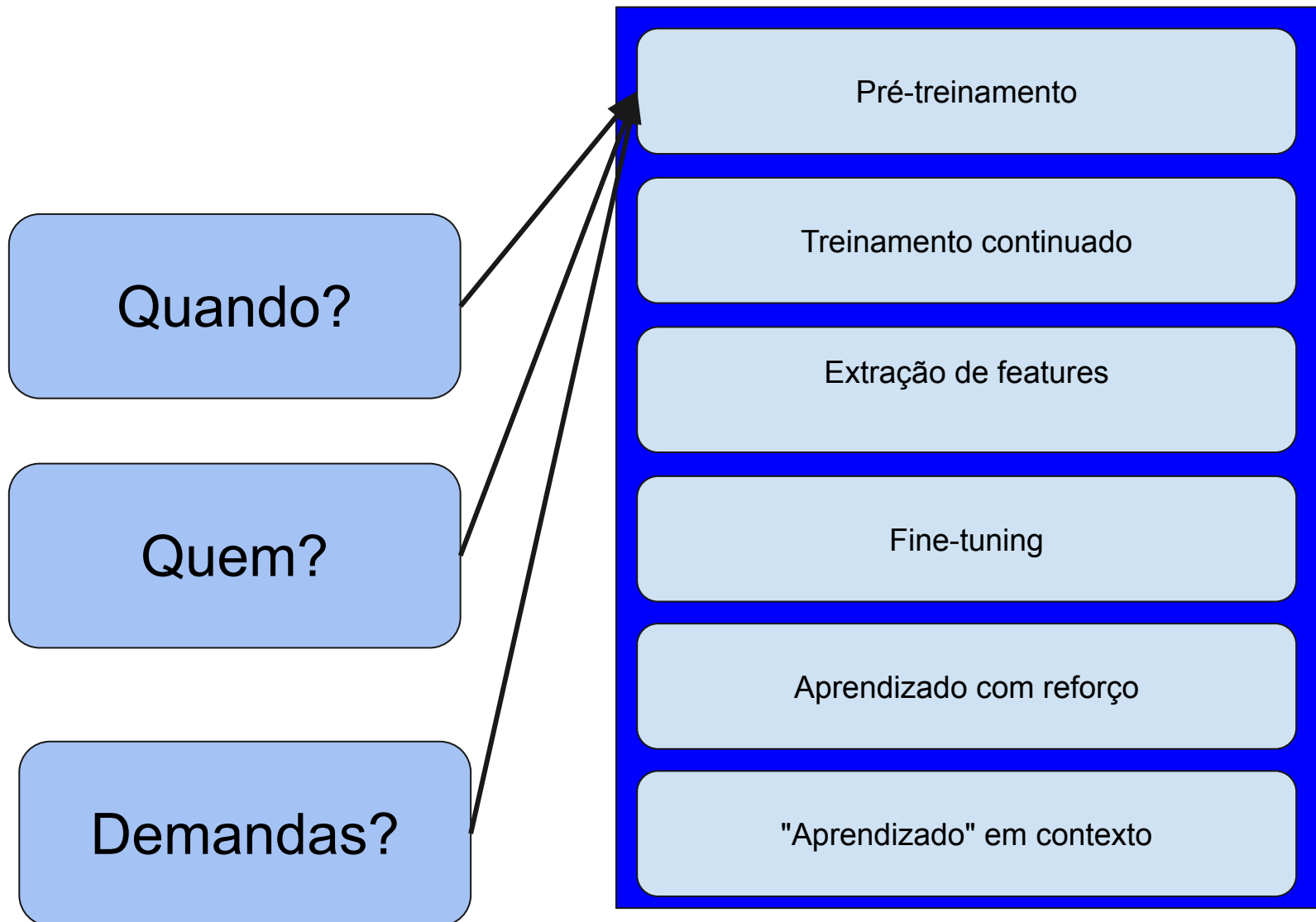
BERT



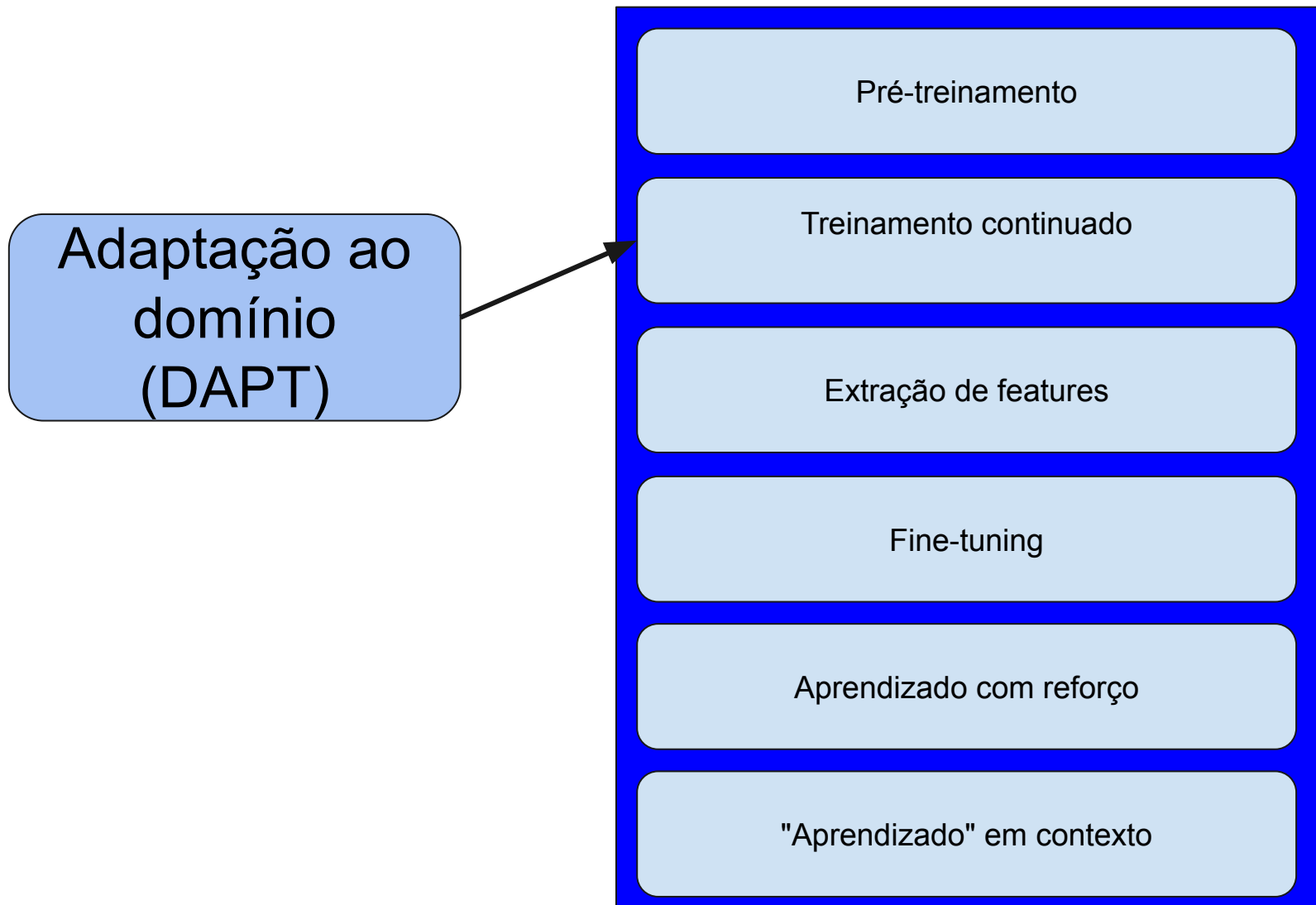
GPT



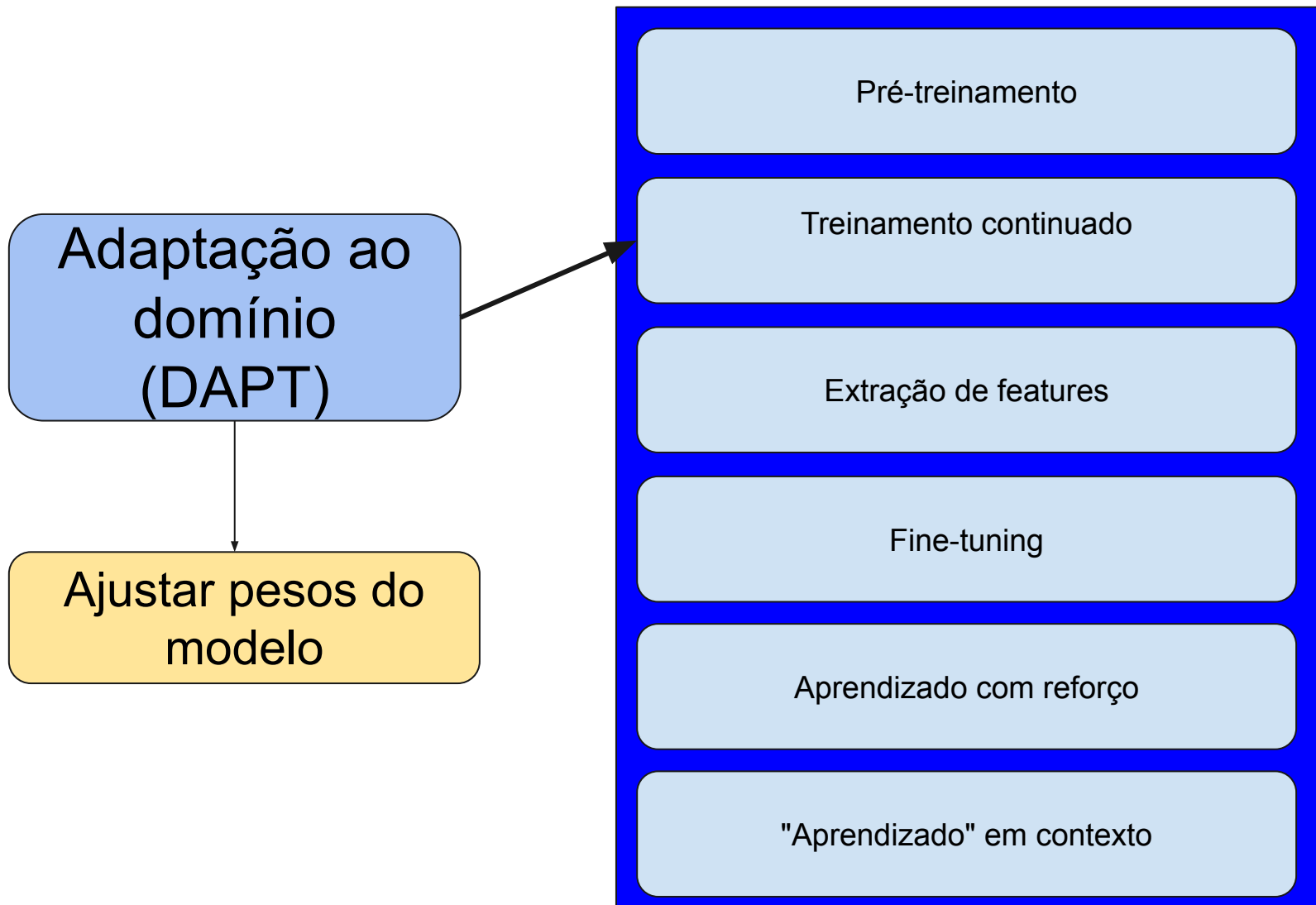
Treinamento de modelos de linguagem



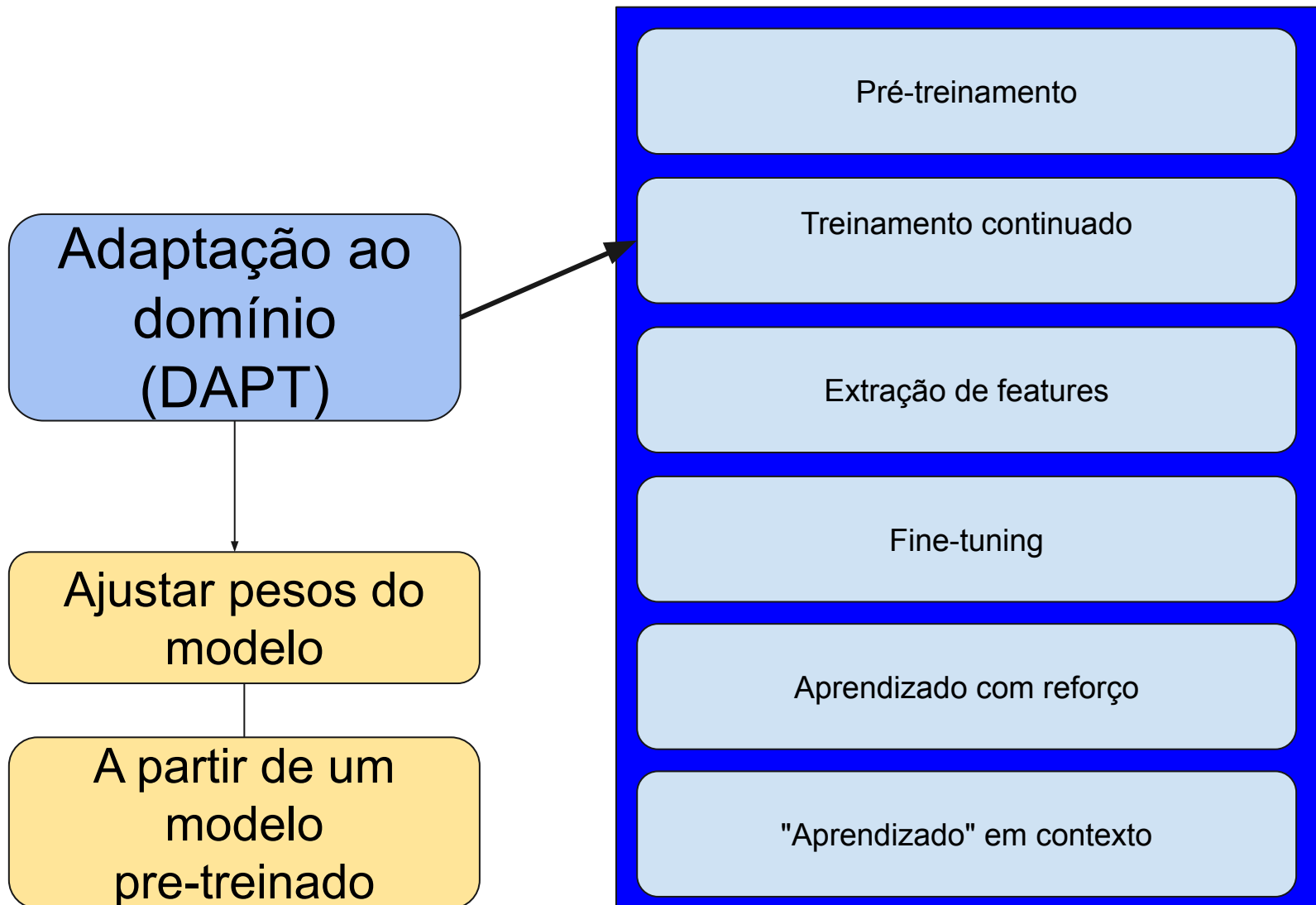
Treinamento de modelos de linguagem



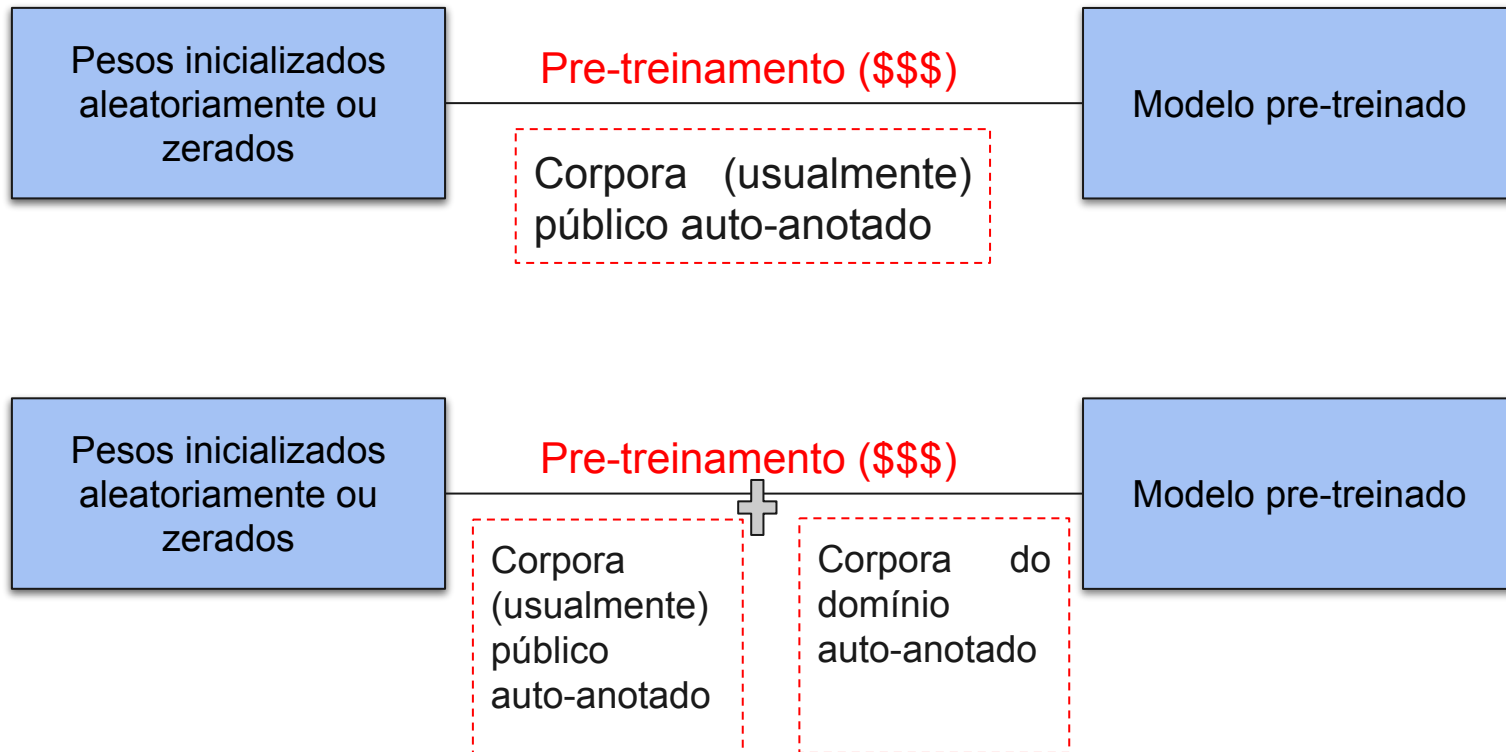
Treinamento de modelos de linguagem



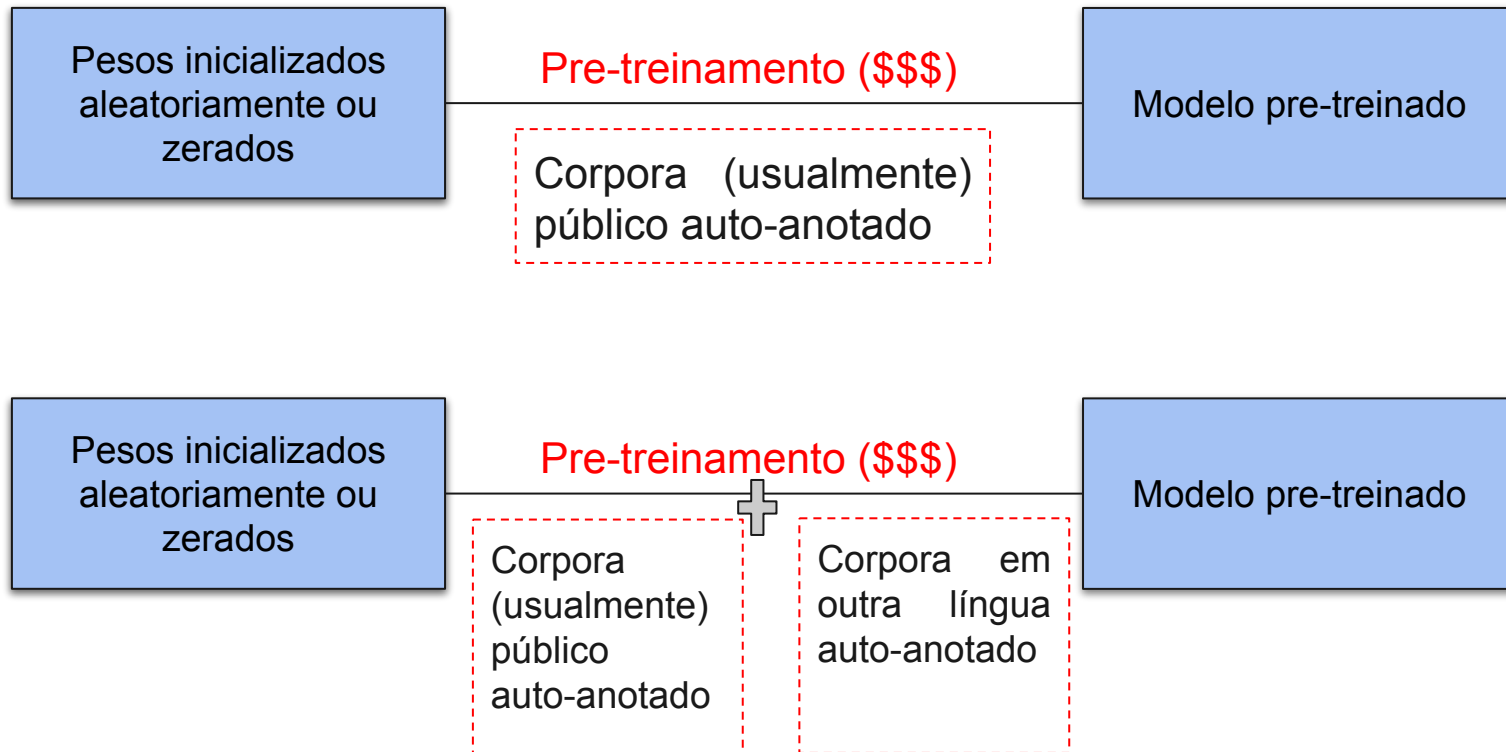
Treinamento de modelos de linguagem



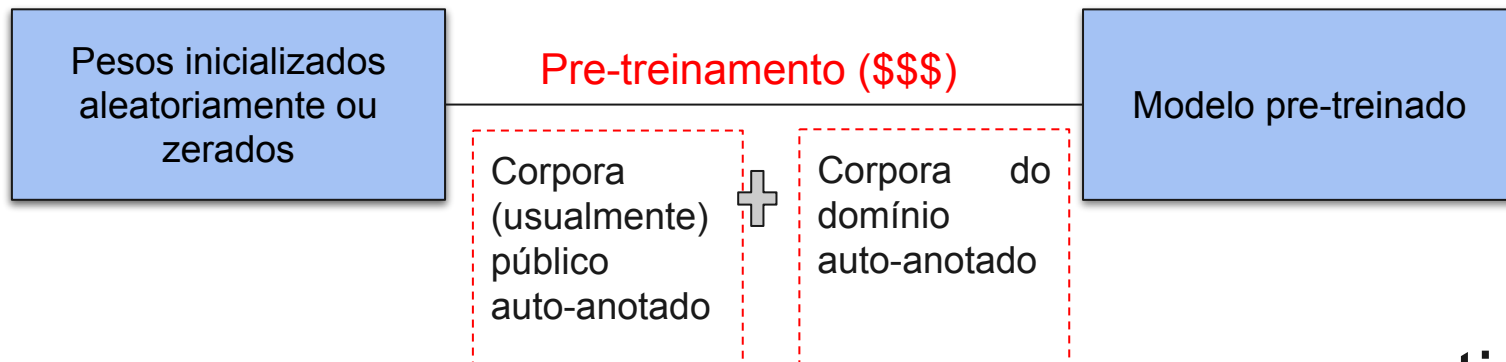
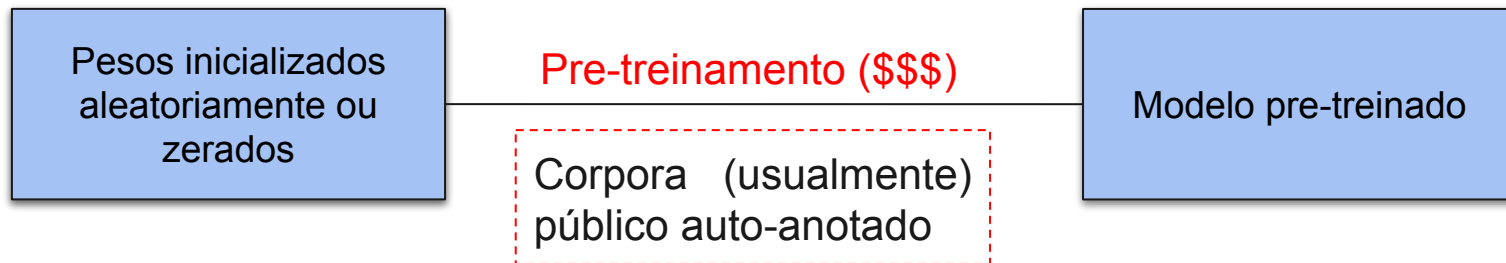
Dados de domínio específico



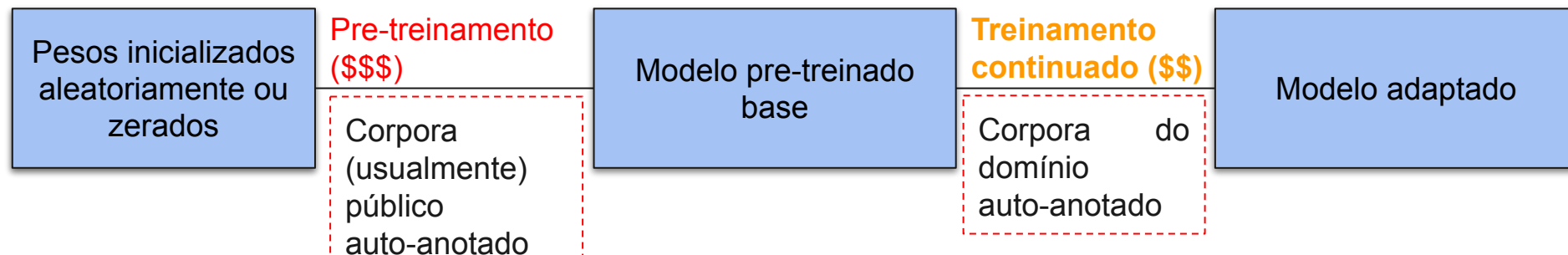
Dados de domínio específico



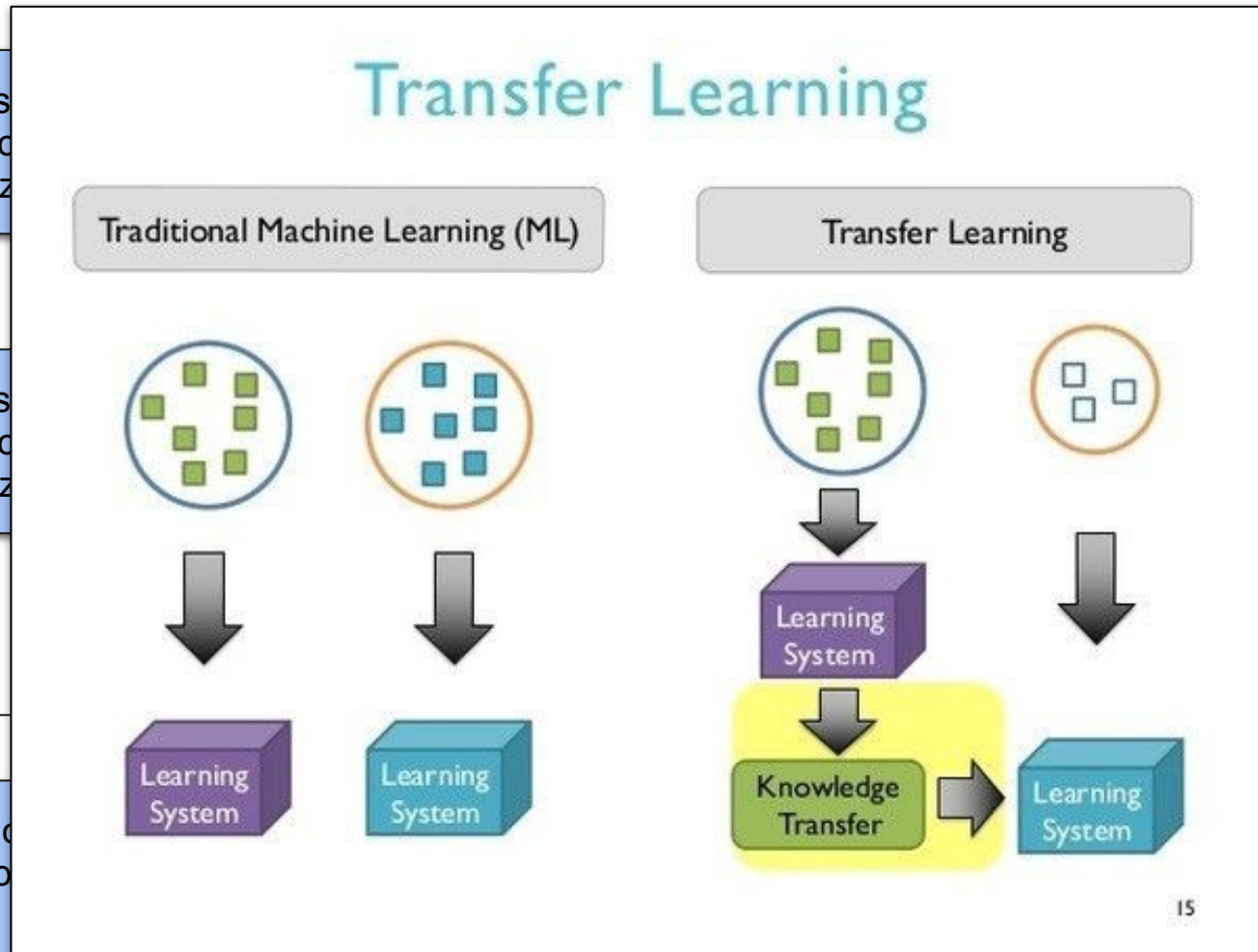
Dados de domínio específico



continuado



Dados de dominio específico



Pesos inicializados aleatoriamente o zerados

(usualmente)
público
auto-annotado

dominio
auto-annotado

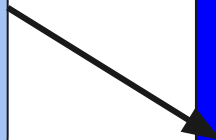
continuado

o adaptado

Notebook treinamento

Treinamento de modelos de linguagem

Recuperar
embeddings
para treinar uma
tarefa específica



Pré-treinamento

Treinamento continuado

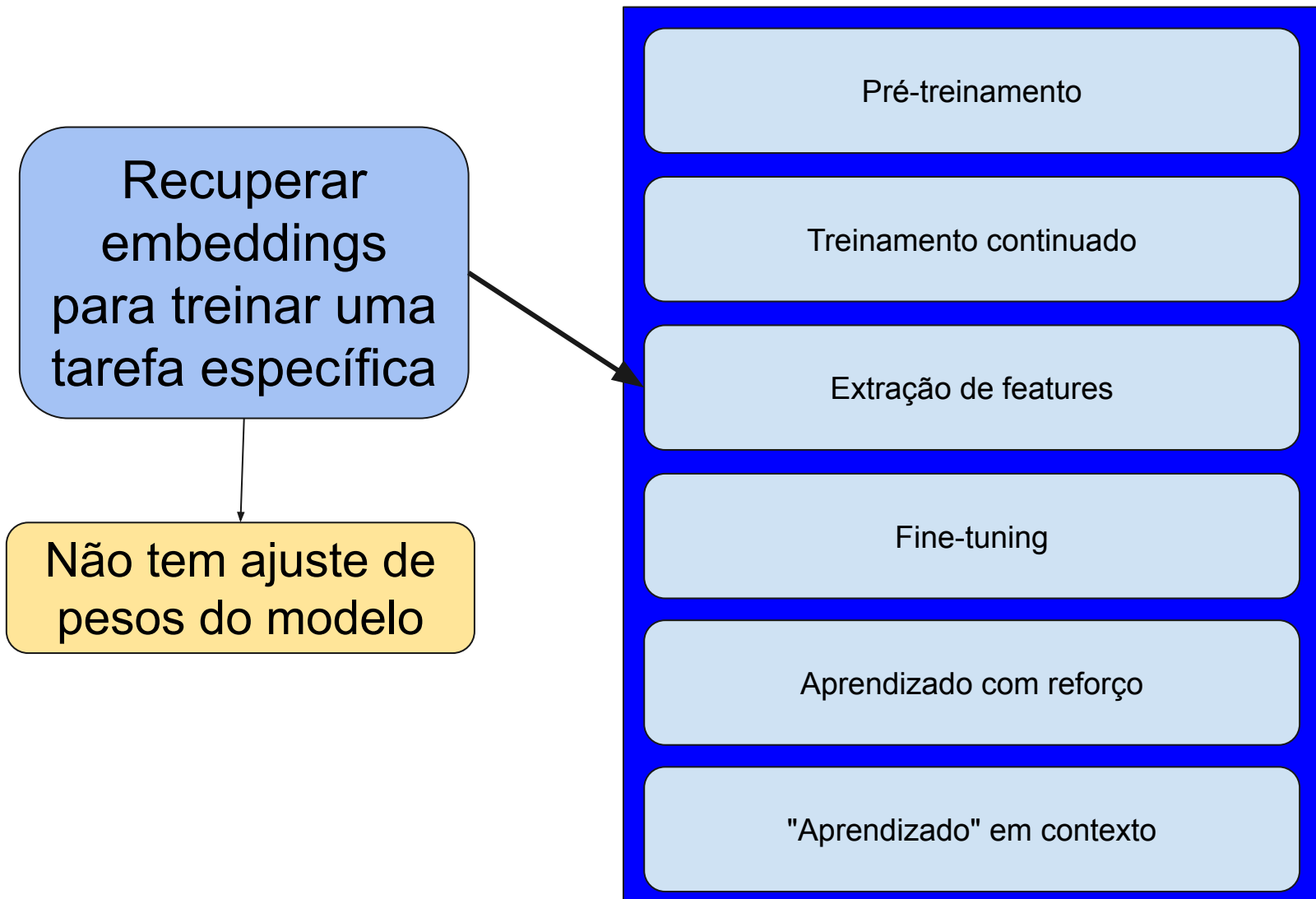
Extração de features

Fine-tuning

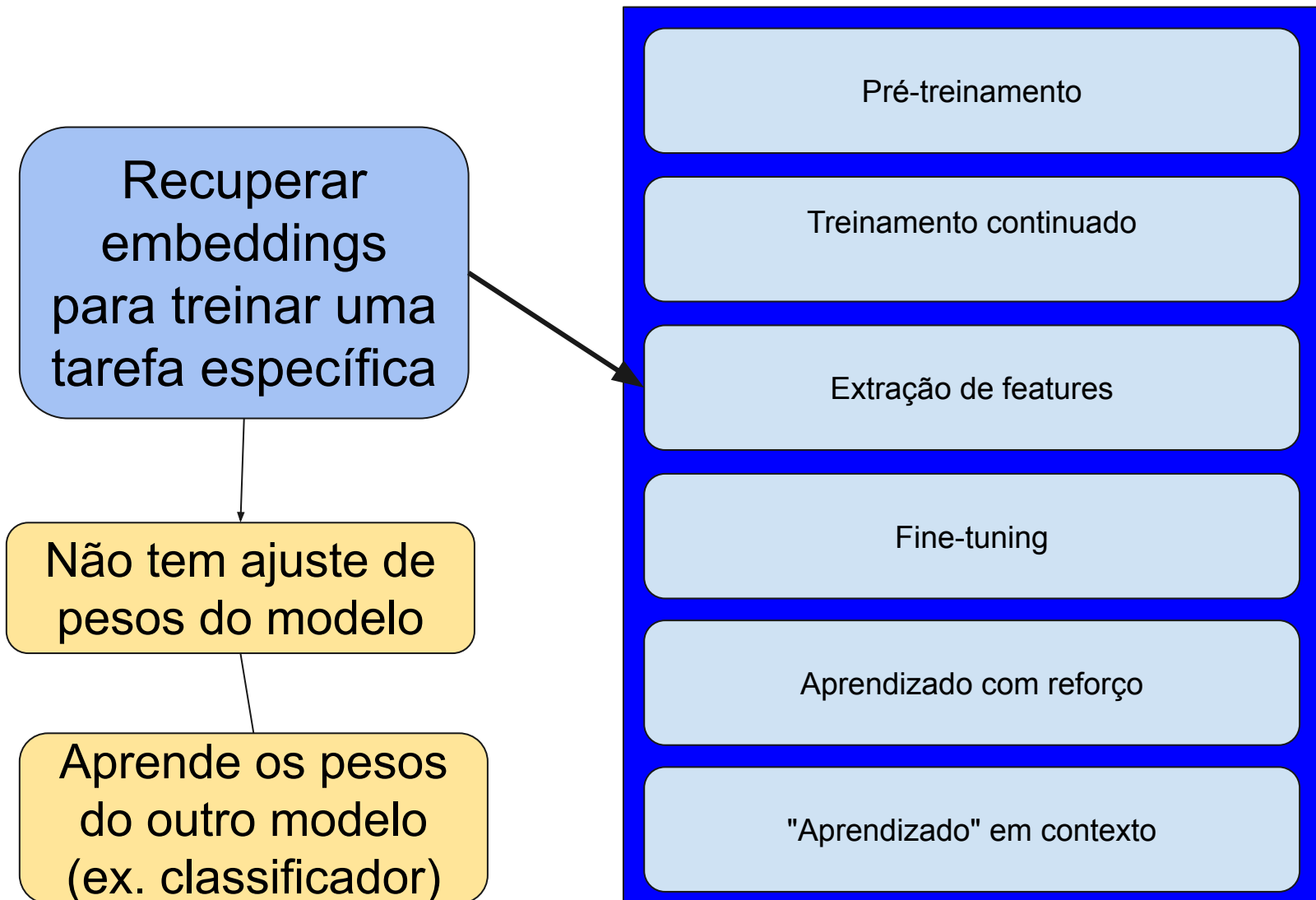
Aprendizado com reforço

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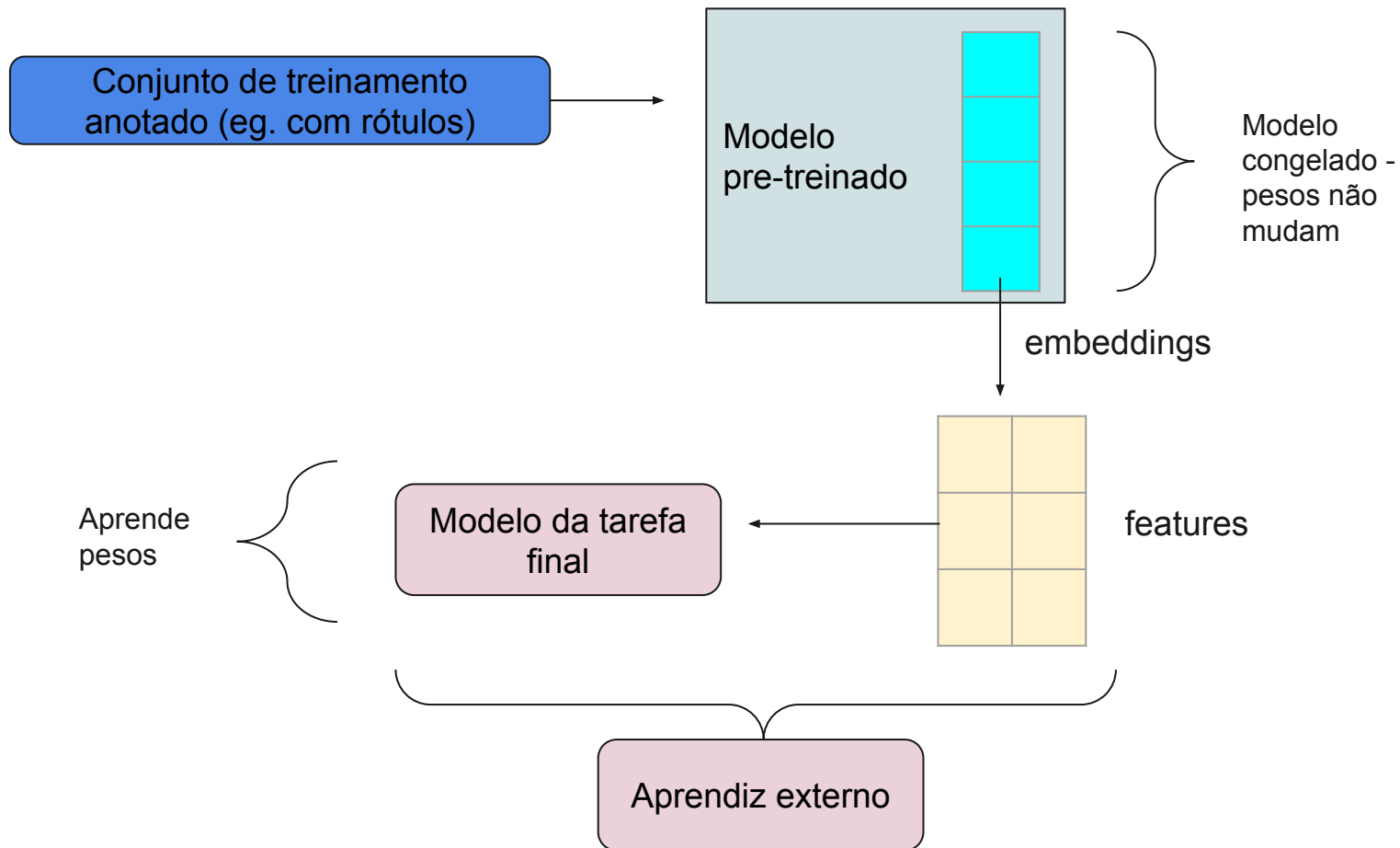
Treinamento de modelos de linguagem



Treinamento de modelos de linguagem



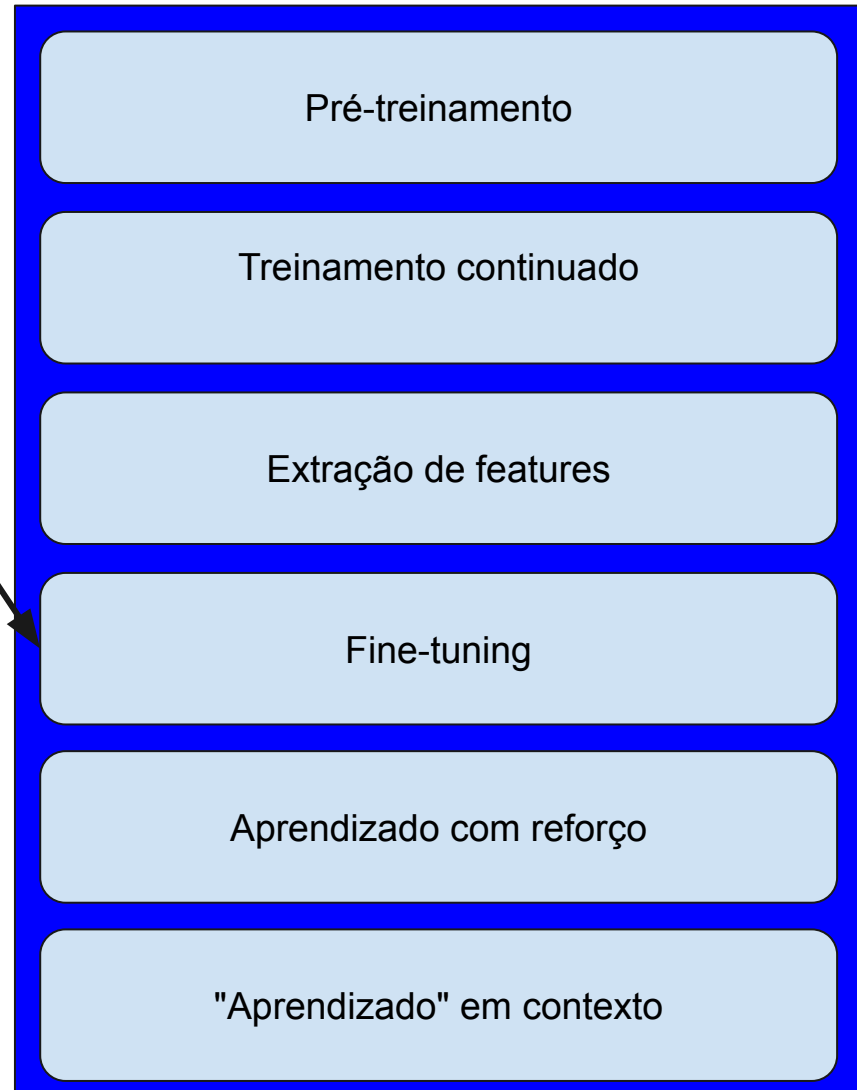
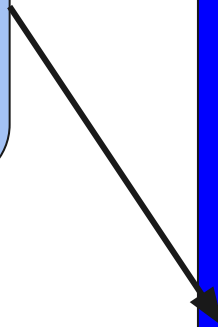
Extração de features



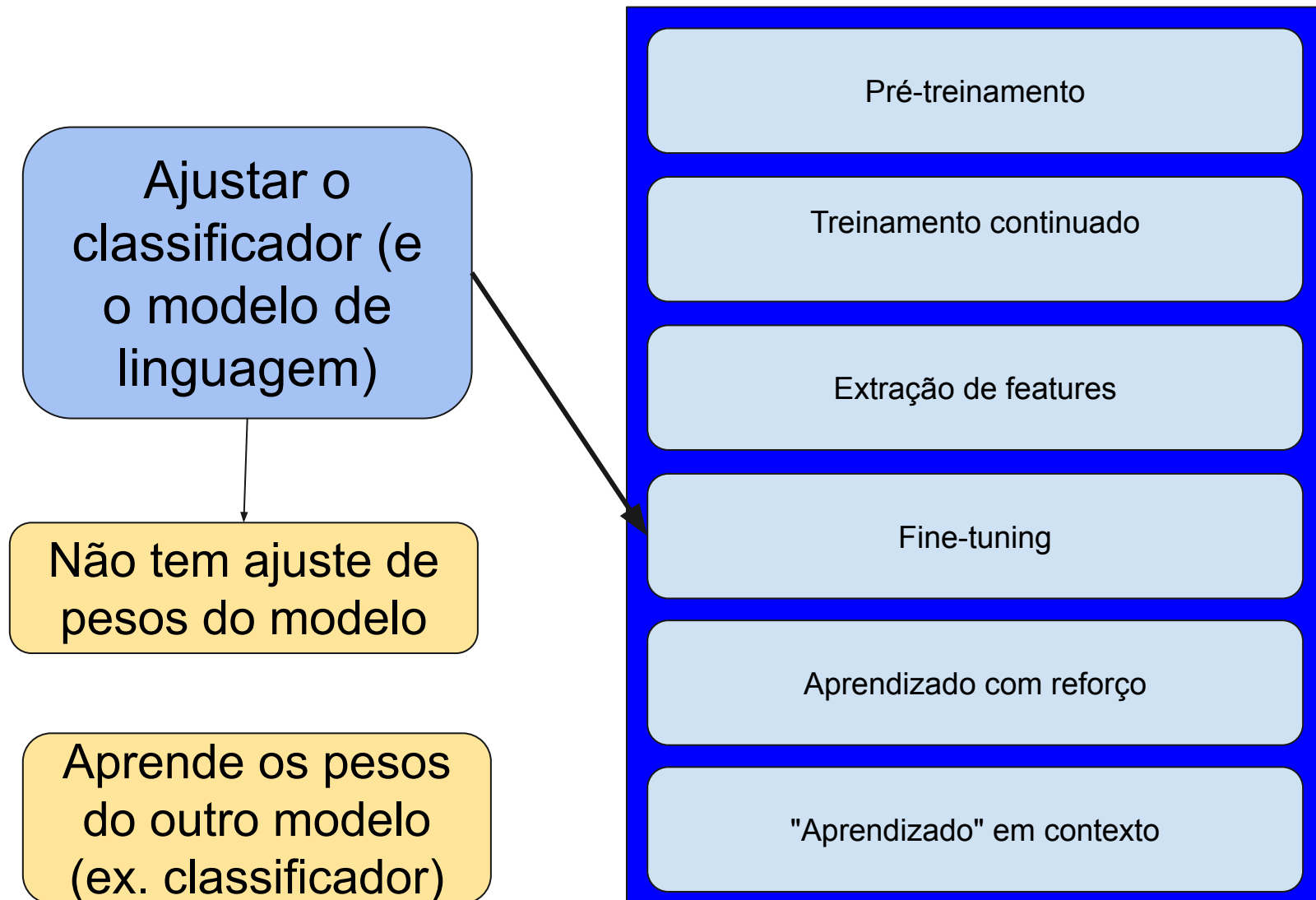
Notebook extração

Treinamento de modelos de linguagem

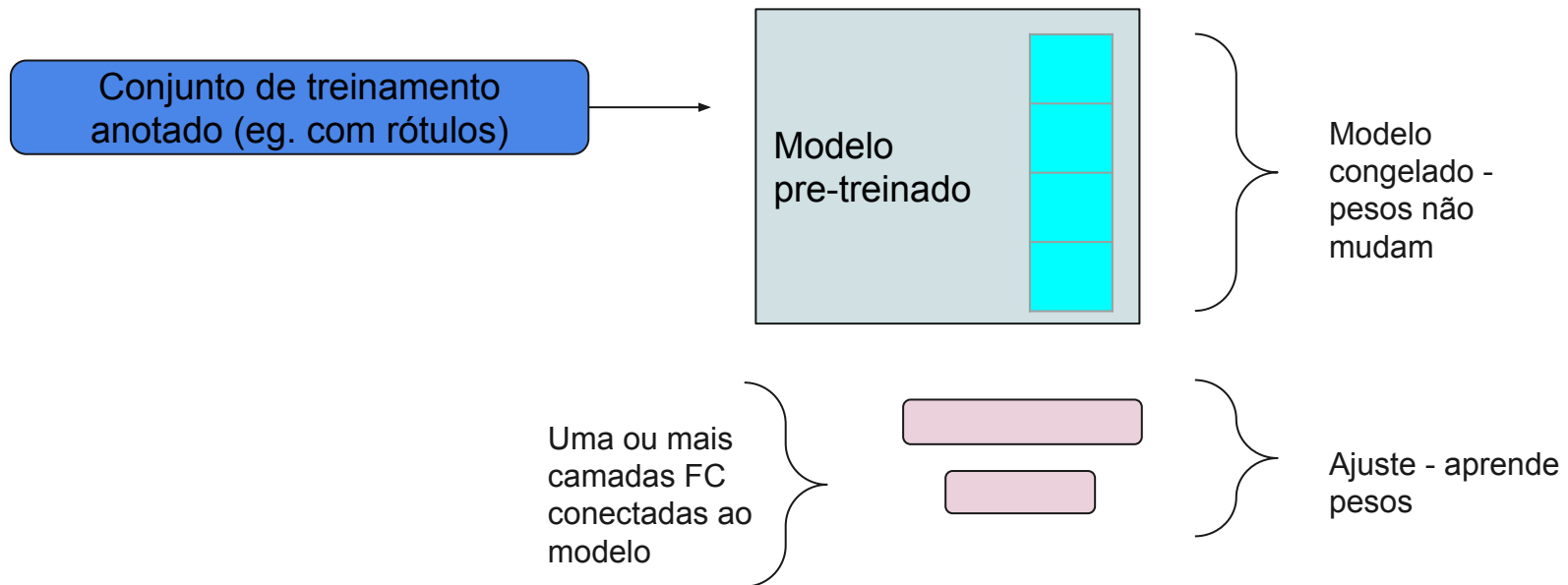
Ajustar o
classificador (e
o modelo de
linguagem)



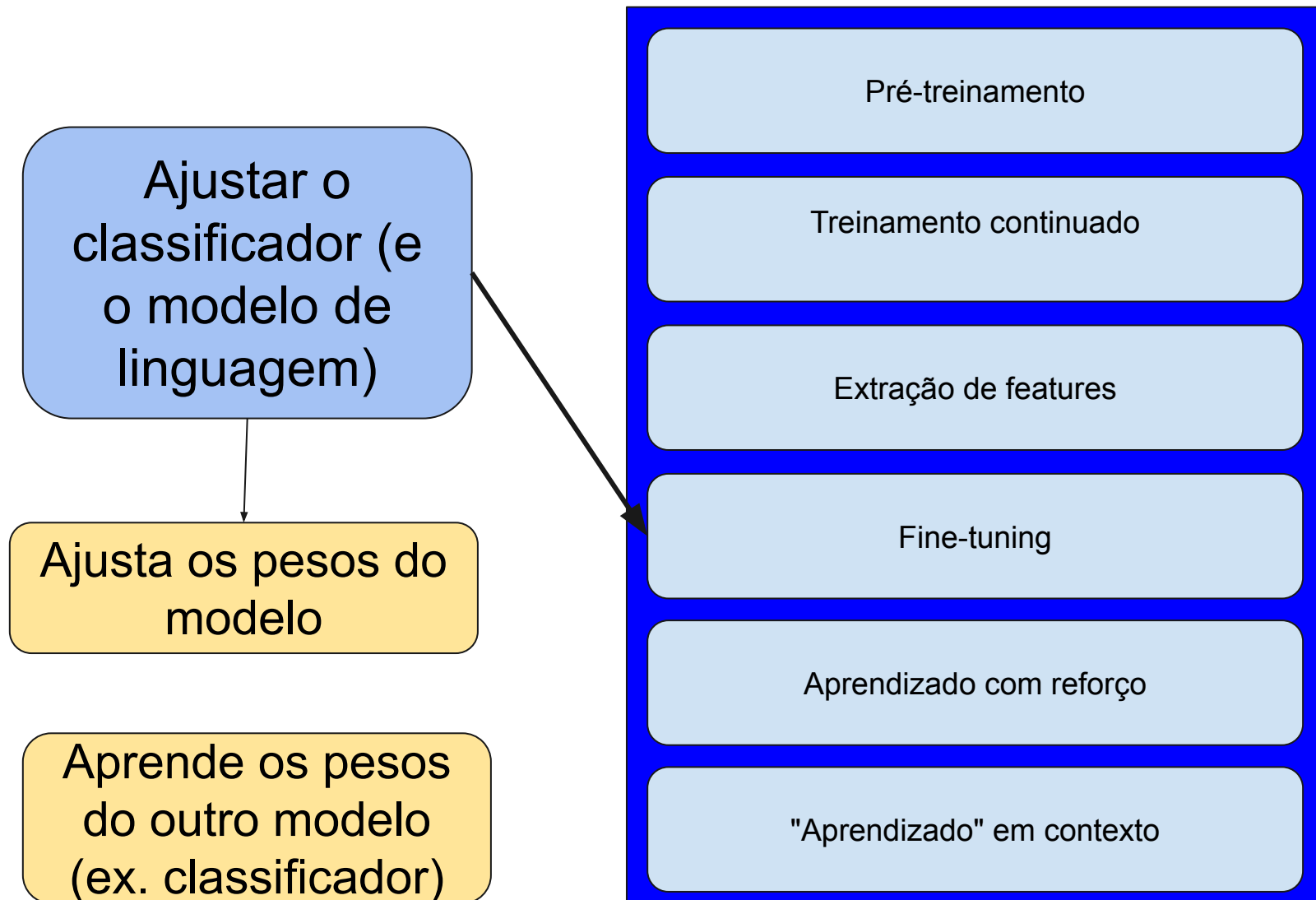
Fine-tuning - Tipo I



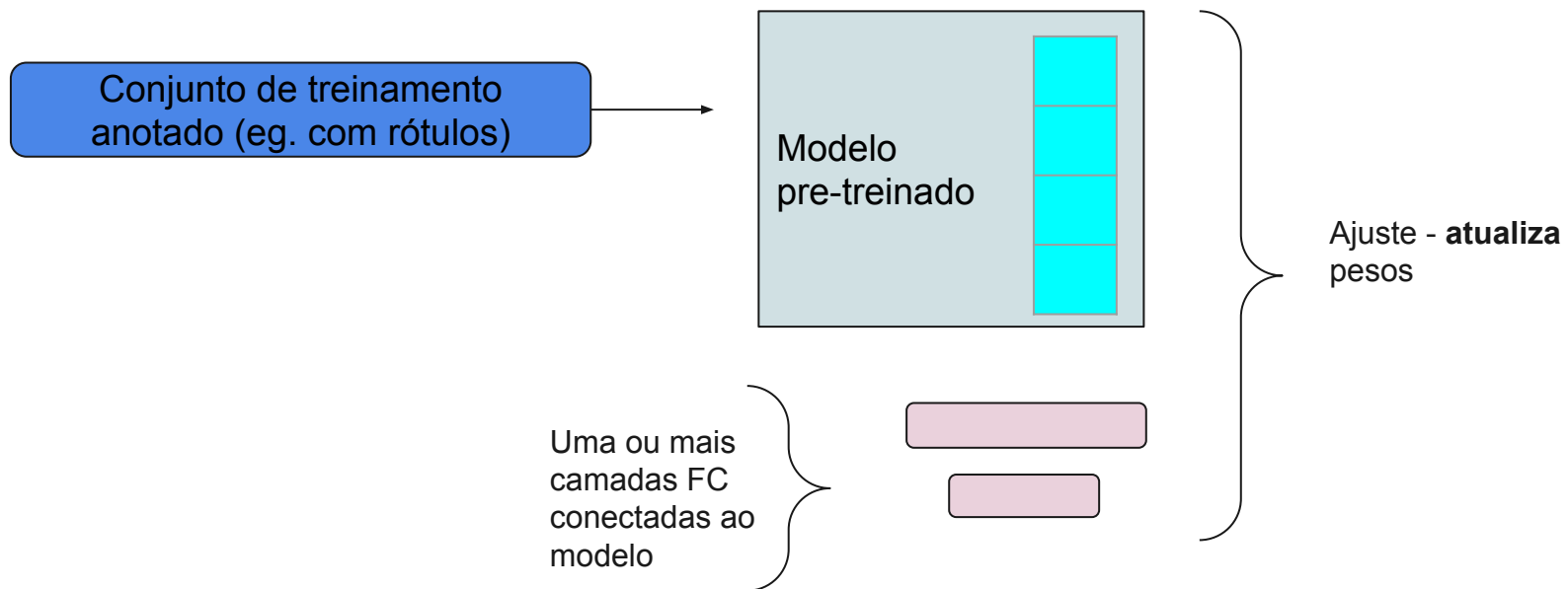
Fine-tuning - Tipo I



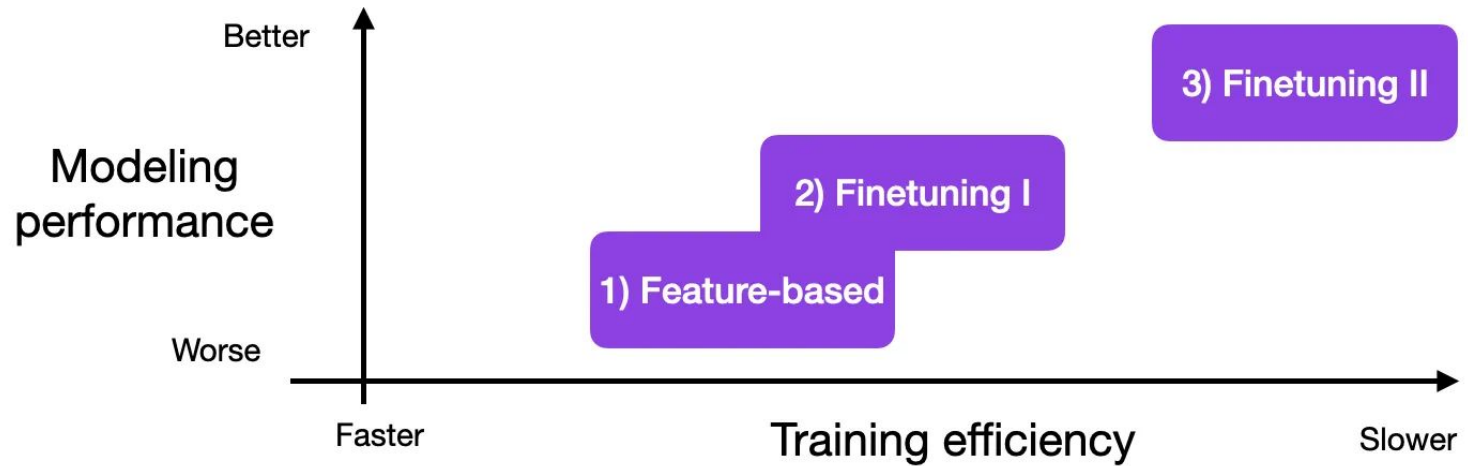
Fine-tuning - Tipo II



Fine-tuning - Tipo II



Fine-tuning



Fine-tuning tipo II

Cenas do
próximo
capítulo

Pré-treinamento

Treinamento continuado

Extração de features

Fine-tuning

Aprendizado com reforço

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