

HyER: *A zero-shot retrieval framework*

30

"Past tense verbs"



They cooked
dinner together

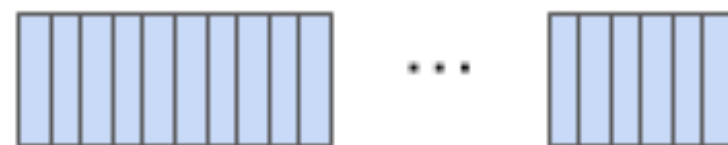
She painted a
beautiful
landscape

We played soccer
in the park

f_{θ}



Exercise set



Similarity
search

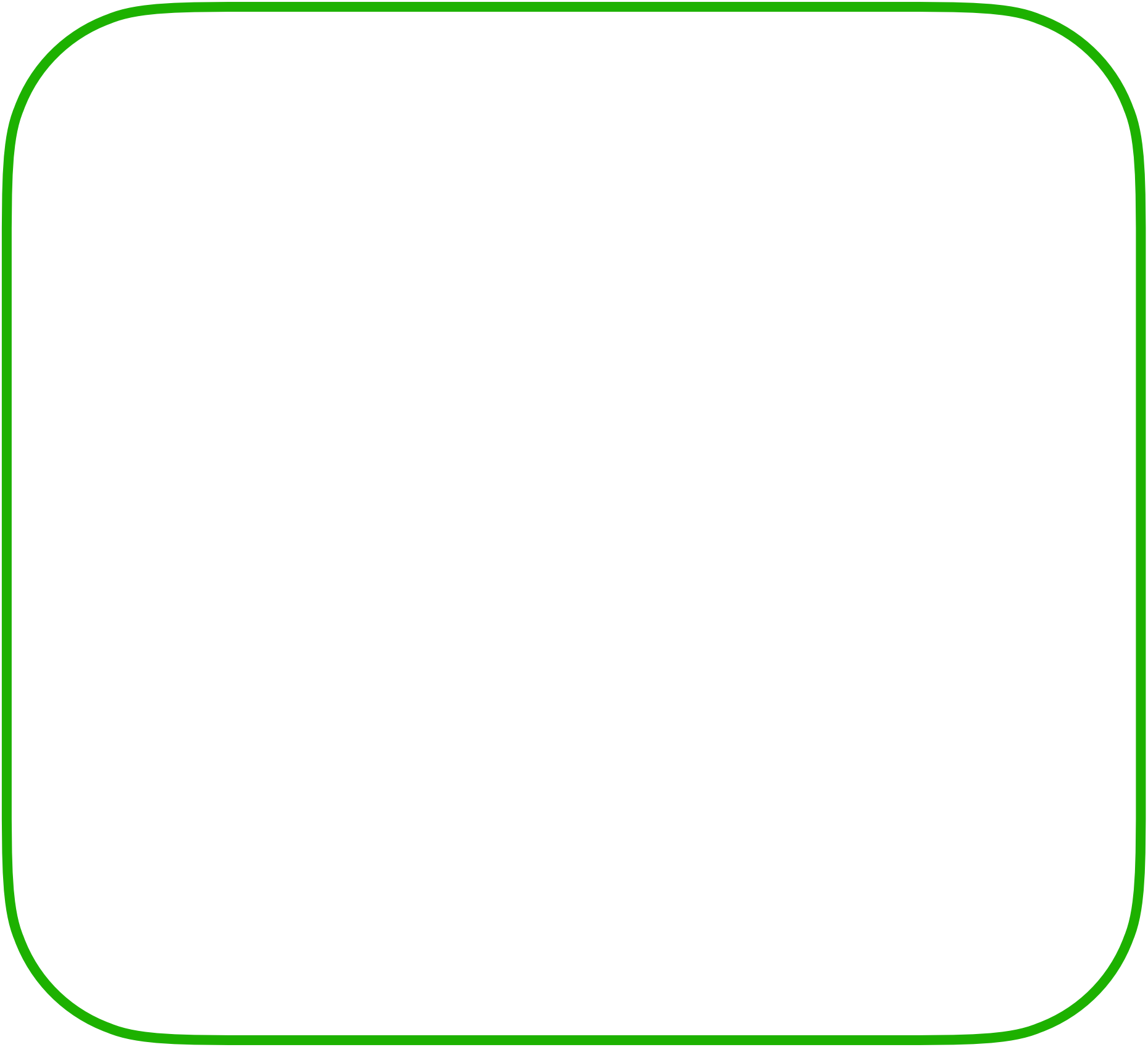
Retrieved
exercises

Training: Multilingual contrastive learning [14]

Retrieval: Use LLM to produce retrieval candidates [15]

[14] Wang et al. (2022)

[15] Gao et al. (2023)

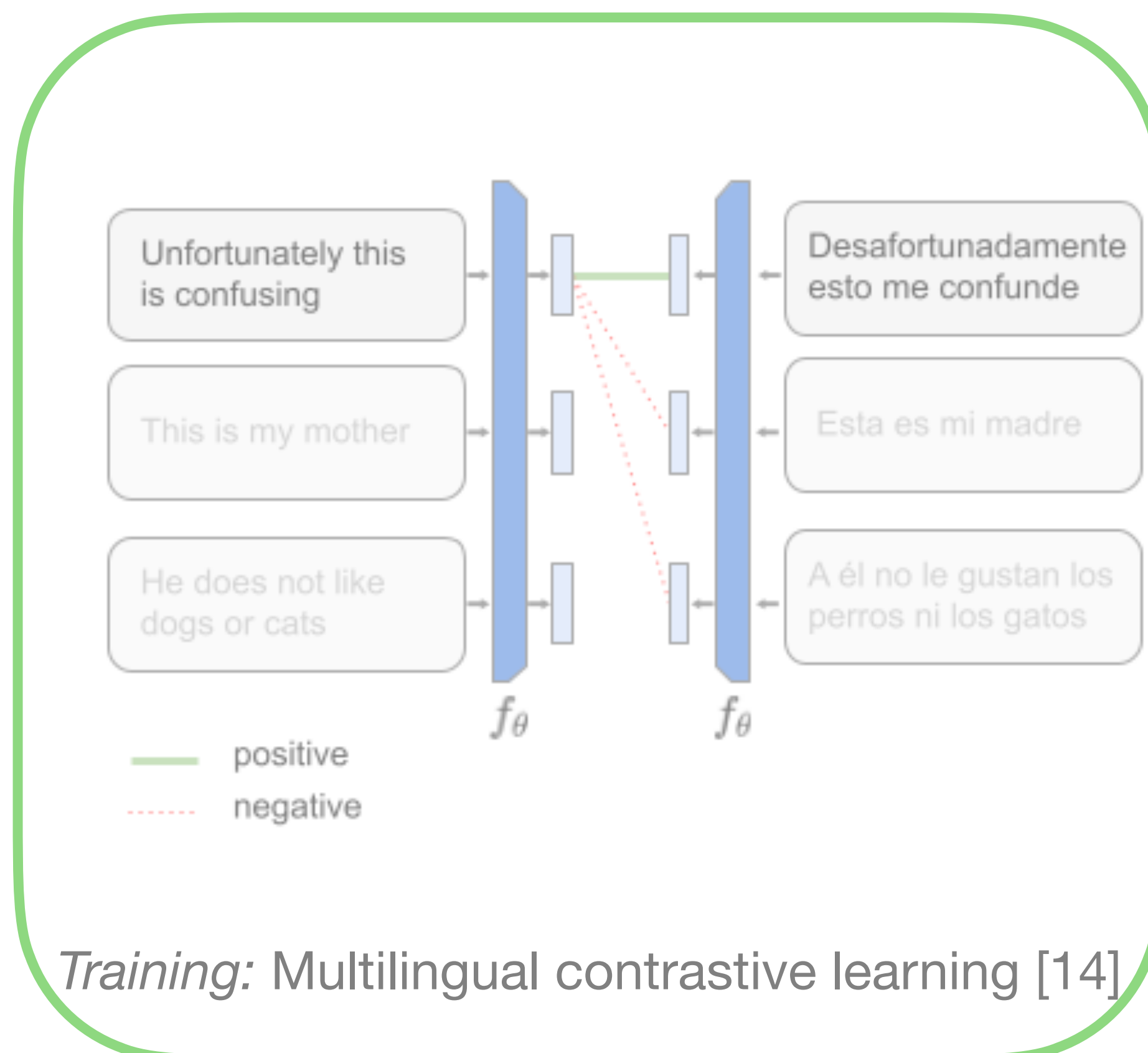


Learn a representation space in
an unsupervised manner with
exercise corpus

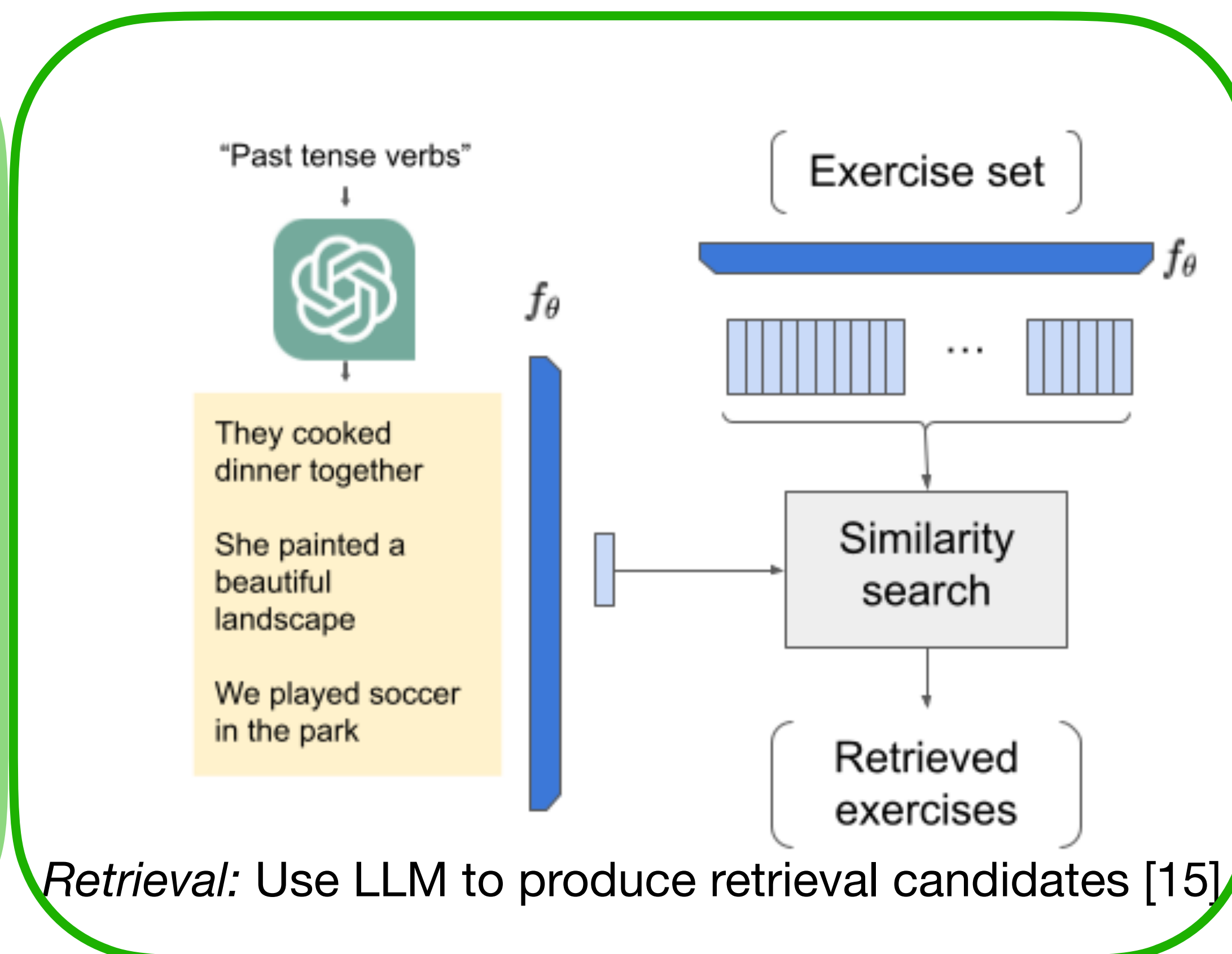


Use LLMs to mimic what a learner would want in a *zero-shot* manner

mHyER: A *zero-shot* retrieval framework



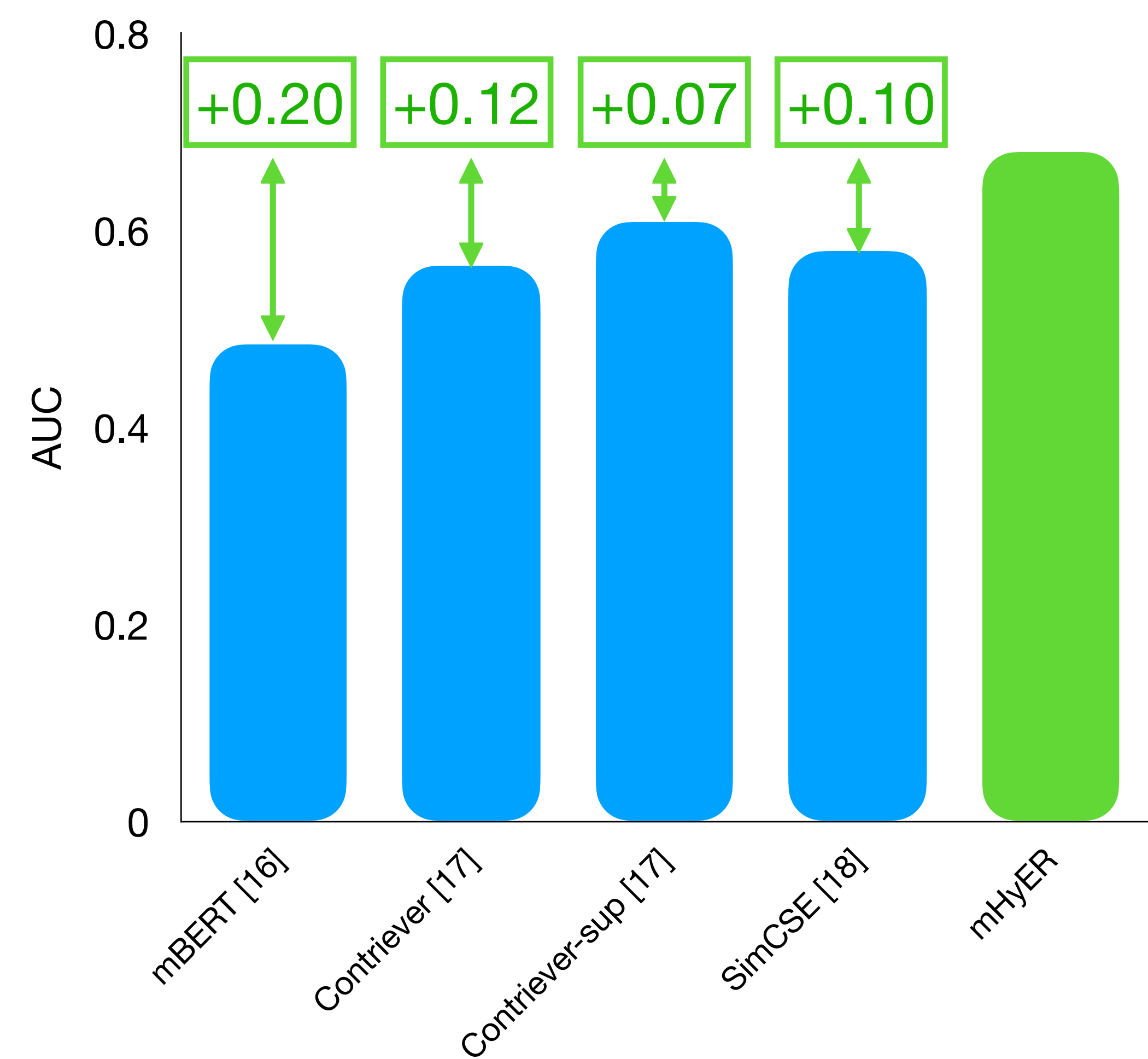
Learn a representation space in an unsupervised manner with exercise corpus



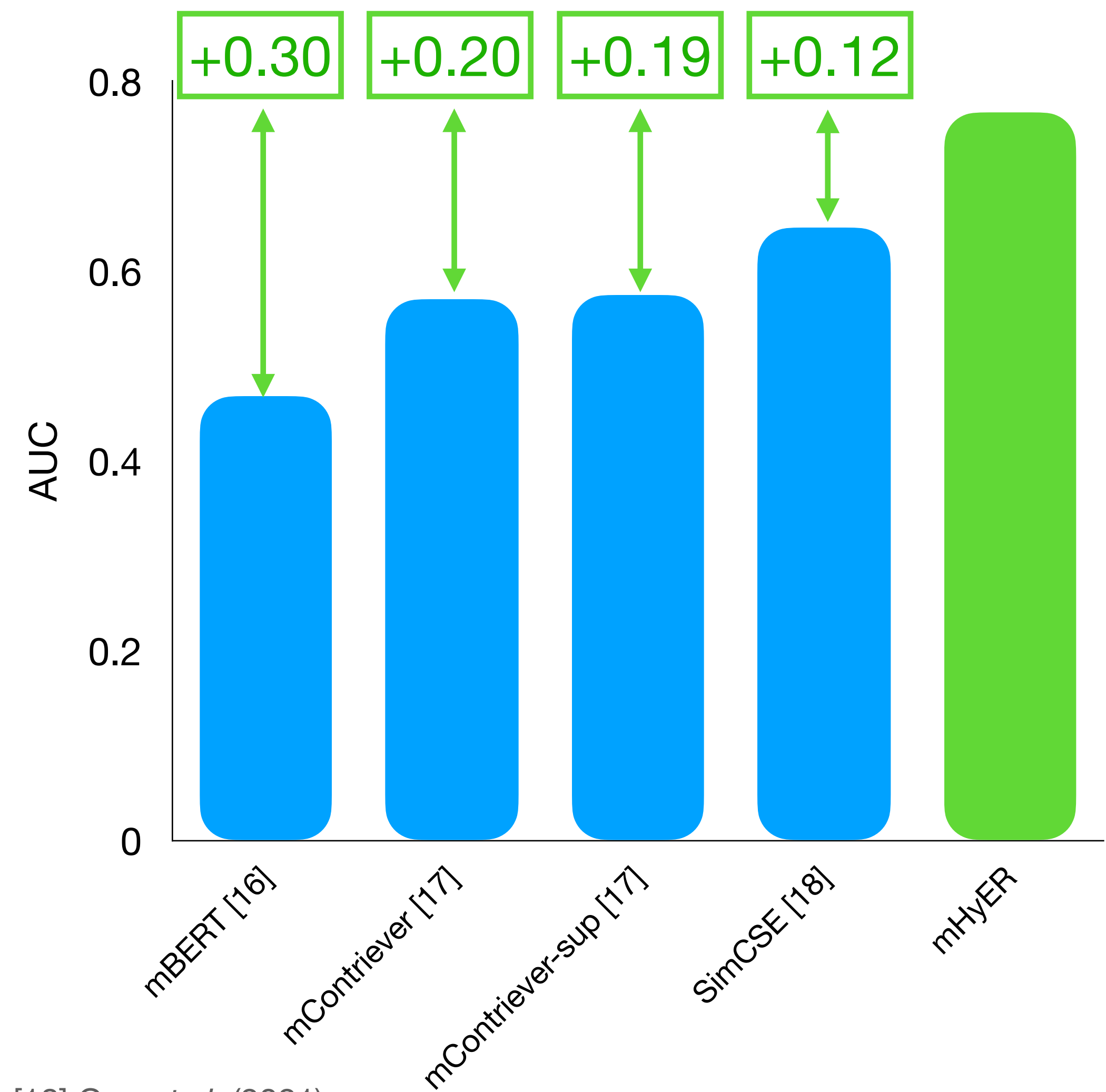
Use LLMs to mimic what a learner would want in a *zero-shot* manner

Direct search vs. mHyER: Empirical results

DuoRD



Tatoeba Tags



[16] Devlin *et al.* (2019)

[17] Izacard *et al.* (2022)

31 [18] Gao *et al.* (2021)