

# A SMART Mnemonic Sounds like “Glue Tonic”:

## Mixing LLMs with Student Feedback to Make Mnemonic Learning Stick



Paper

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GRE vocab is boring...

...so we design **SMART** to generate mnemonics aligned with preferences from **47 flashcard learners!**

SMART-Generated Mnemonic Devices

Lionized

Lionized sounds like "lion-eyes," envisioning a lion being admired for its eyes. Lionized means to be admired or treated like a celebrity.

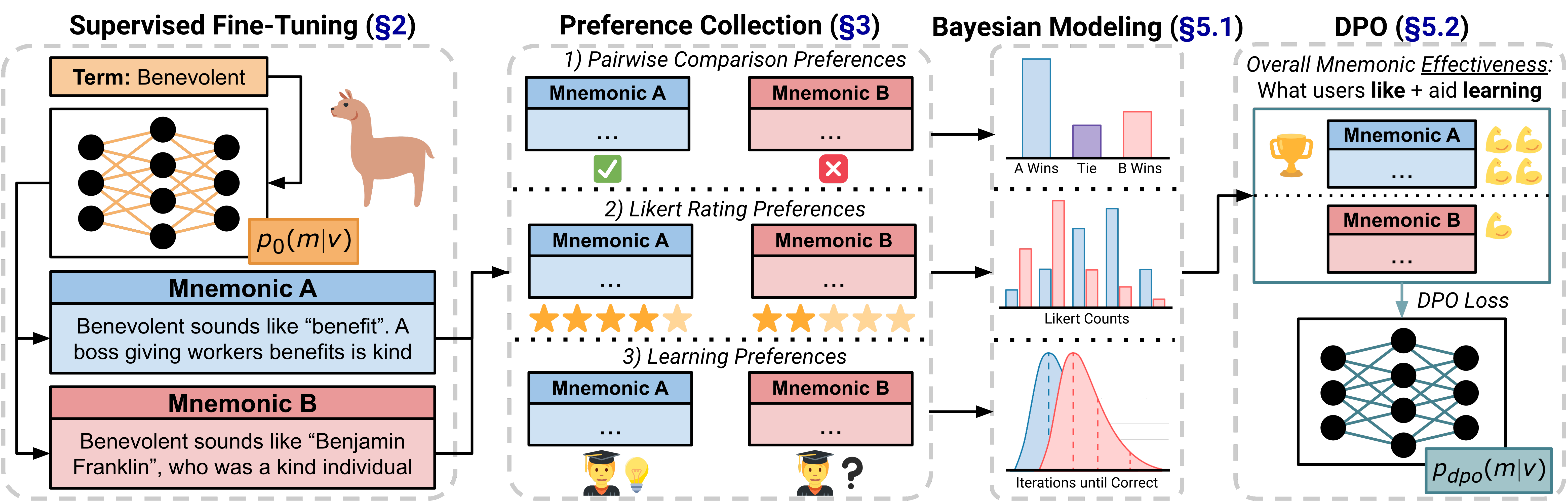
Haptic

Haptic sounds like "happy tic," which can be associated with a happy tickle, relating to touch. Haptic refers to the sense of touch.

Upbraided

Upbraided sounds like "up" + "braid." Imagine a teacher scolding a student for not braiding her hair properly. This scolding or reprimanding is upbraiding.

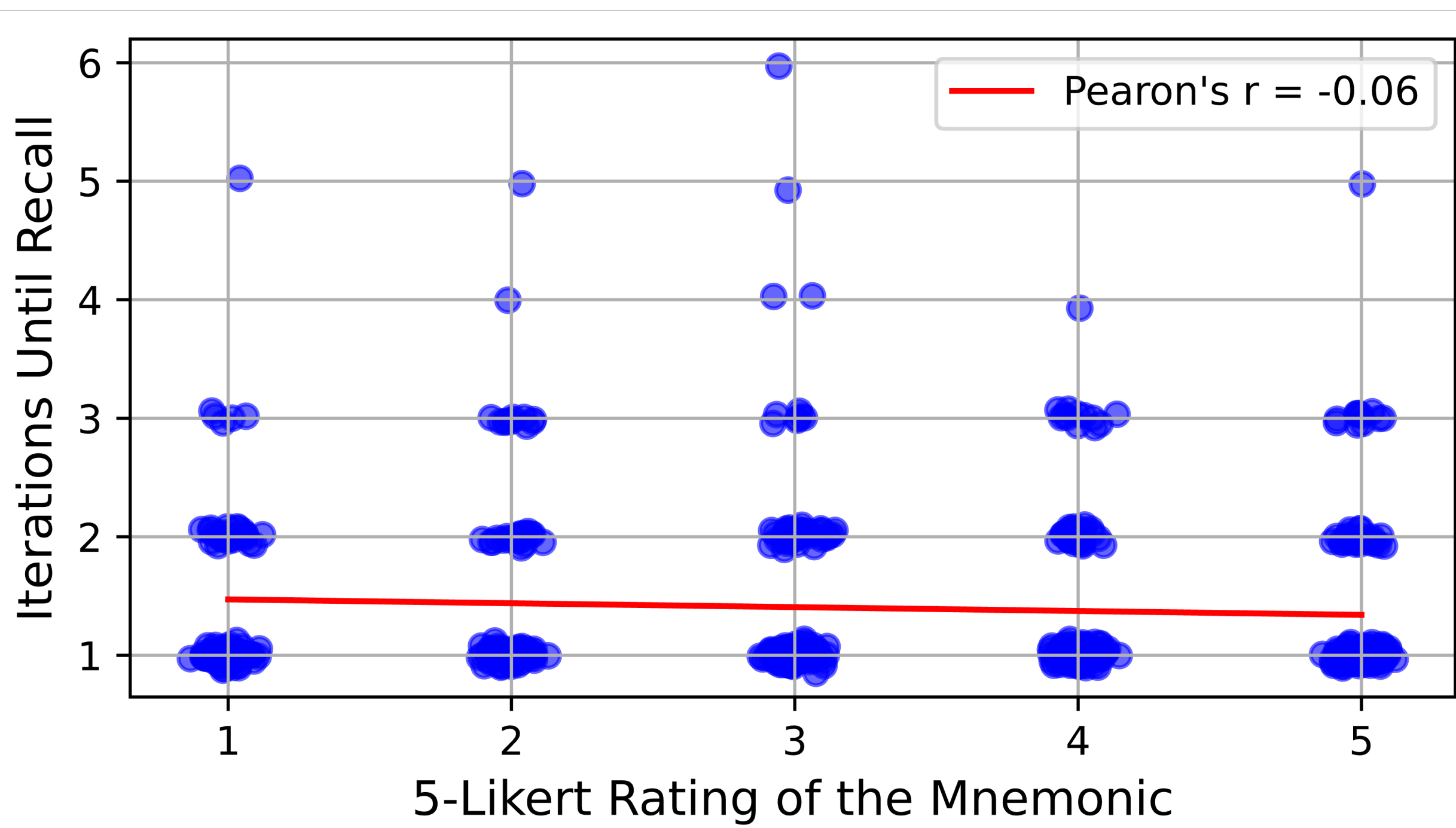
SMART: Student Mnemonic Alignment to aid the Recall of Terms



**Finding 1:** What students *think* help them learn **is not the same** as what *actually* helps them learn

Raw Agreement Between Preference Types

	Pairwise Comp.	Likert Ratings	Learning
Pairwise Comp.	1.000	0.646	0.466
Likert Ratings	0.646	1.000	0.593
Learning	0.466	0.593	1.000



**Finding 2:** We can **break ties** in pairwise comps.

**Finding 3:** SMART **more efficiently** matches GPT-4

