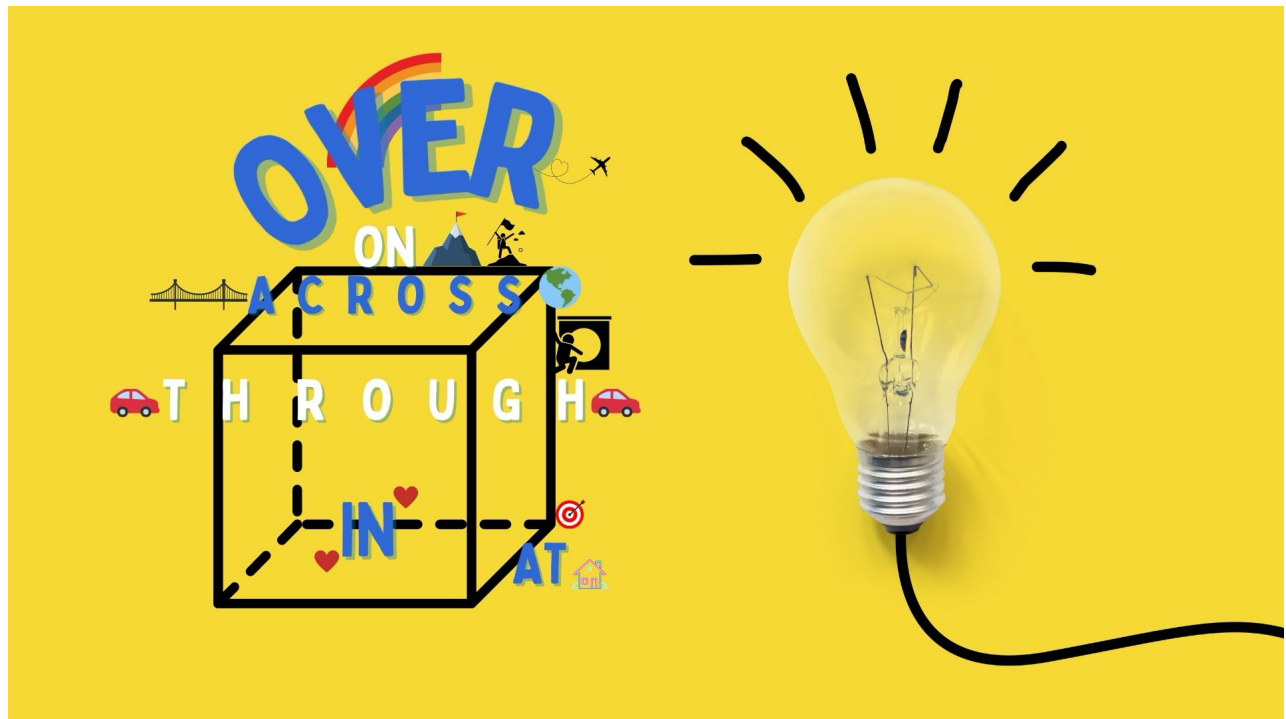


#Prepositionsarecool#agreetoagree#grammarisfun

The Power of Meaning Making

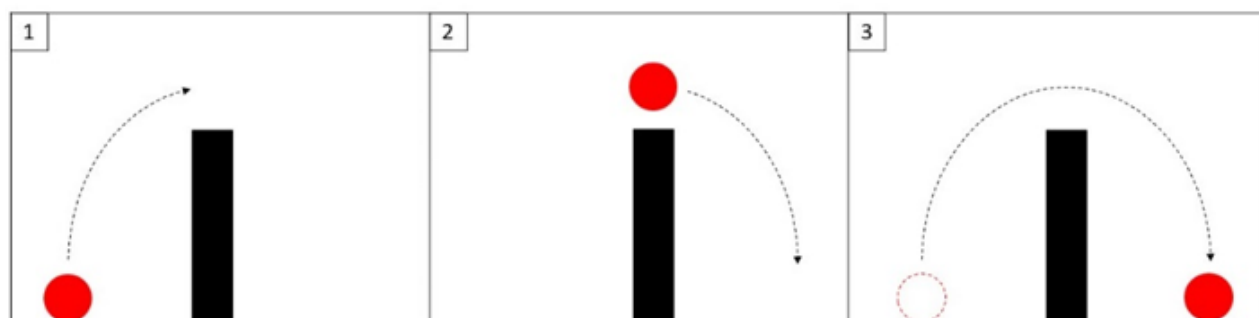
BY [Ivy Wong](#)



At or in? On or above? Through or over?

A professor once asked, 'Why look at prepositions? They are not as important.' He laughed, and I laughed. He thought I was laughing with him, but in fact, I was laughing at him. Mastering English prepositions has always been a challenge for many, native speakers included OKAY! A recent study published in [TESOL Quarterly](#) demonstrates how animated schematic diagrams effectively help language learners map abstract meanings of prepositions to their spatial counterparts. Let me explain with the example 'over'. What comes to your mind when I say, 'something jumped over the wall'? If you have had enough encounters with the

physical world, the mental scene that pops up in your head should be quite like the comic strip shown below – and that is what we called a schematic diagram.



The beauty of these schematic diagrams lies not only in explaining tangible relationships, but also in their ability to resonate with abstract concepts. For example, the figurative journey of “getting over” something engages your five senses much like the physical act of jumping over a fence – see it for yourself below. In short, the English Preposition Tutor distills seemingly complex webs of prepositional meanings into just a handful of animated schematic diagrams. Less is more indeed!



*The athlete jumped **over** the fence*



*James got **over** his divorce*

Both behavioral and neurocognitive evidence suggests that cognitive linguistics concepts bring important benefits in fostering sustainable language development. But how can we transfer these findings into teaching practice? Hey teachers, our research team got you covered! A version of the [English Preposition Tutor](https://app.gorilla.sc/openmaterials/729456) is publicly and freely available to you and your students on <https://app.gorilla.sc/openmaterials/729456>.

Teachers or Computers? Why not both!

So, do we still need teachers? Absolutely! Our latest research compared the effectiveness of various methods for delivering cognitive grammar training to young adults. What we discovered is that social interaction is key to robust language development. However, unlike rote learning, the improvement gained through the cognitive approach may take longer to manifest, but it is here to stay! Now, if you're looking for a speedier yet sustainable boost, the quick answer is = teacher + computer. The analysis showed that the treatment group that received face-to-face cognitive grammar instruction followed by computer-assisted practice, learnt more quickly than those who exclusively learnt from a teacher. What about those that only learnt on computers? We found immediate and substantial gains in comprehension tasks (e.g., sentence processing), but the drop was proportionally large as well. Learners who only interacted with the computer might tend to prioritize the outcome (correct or wrong), rather than the feedback provided. Therefore, teachers play a significant role in highlighting how meaning, such as humor, can be crafted through wise linguistic choices rather than merely completing a drilling exercise at hand.

Unleashing the Power of Bayesian Analysis in Language Learning

Bayesian approaches to data analysis were prevented due to its computational complexity in calculating the likelihood (probability) of an event, but things have changed — a lot. We now have the capability to leverage Bayes' Theorem. It allows us to incorporate prior knowledge (your expertise) when estimating event likelihoods and update our expectations as new information emerges. In the context of language learning, as much as we would love to see all learners maximizing their gains from our well-thought-out instruction, we know success rates depend on numerous factors, such as English proficiency, motivation, language aptitude, socioeconomic background, parents' education levels and the list goes on. My point is – computer nowadays does more than simply delivering training and practice materials for us. They can help us predict learner

performance with greater precision by constantly adjusting the weights of different variables. More importantly, it brings valuable insights to language practitioners for setting up the magic formula that addresses individual needs that might change from day to day. Join us on this journey as we explore the transformative impact of [Bayesian analysis](#) in the landscape of language education. The Python source code for our Bayesian mixed effect model is publicly available on [GitHub](#).

If you don't want to miss out on amazing resources and updates from our research team, please follow us on [Instagram](#)!