

What's the distance between the bathtub and the toilet? (GT: 1.0 meters)

Without visual inputs:



Assuming a standard bathroom layout, the distance between them could be 0.8 to 1.5 meters or more. (Correct)

With visual inputs:



VSI-Bench

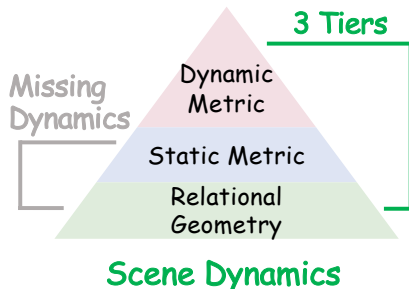


1.0 meters. (Correct)

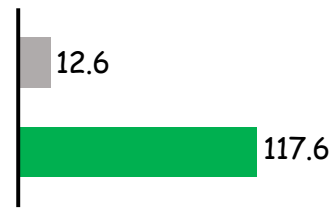
Indoor Datasets

- ! Constrained Scale
- ! Structured layouts
- ! Static, no motion

In indoor scenes, models can leverage **linguistic priors** to answer correctly **even without visual inputs**.



(b)



GT Scale Range (m)

(c)

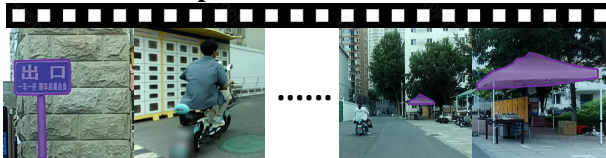
What's the distance between the blue sign and the canopy? (GT: 33.5 meters)

Without visual inputs:



In most urban or commercial outdoor settings, a blue sign and a canopy are usually 1 to 3 meters apart. (Wrong)

With visual inputs:



OpenBench (ours)



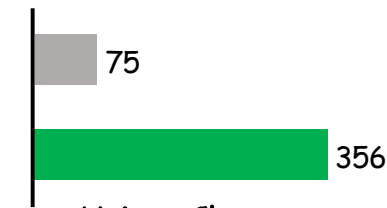
15 meters. (Wrong)

Our Open-World Data

- ✓ Dynamics
- ✓ Large Scale Variation
- ✓ Unstructured layout
- ✓ High Semantic Diversity

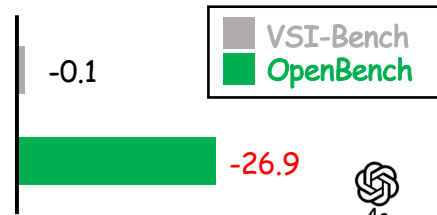
In our open-world scenes, these priors fail, **forcing a reliance on visual cues and exposing models' true visual limitations**.

(a)



Unique Classes
High Semantic Diversity

(d)



ACC Drop (w/o vision)
Unstructured Layout*

(e)