

Common Mistakes Students Make

WRONG

Vectors are arrows

Attention copies words

Softmax changes total value

More heads = more accuracy

Transformers understand meaning

Position encoding adds dimensions

CORRECT

Vectors are LISTS of numbers
(arrows are just one visualization)

Attention creates WEIGHTED AVERAGES
(blends information, not copies)

Softmax creates PROBABILITIES
(sum always = 100%)

More heads = more PERSPECTIVES
(not automatically better)

Transformers find PATTERNS
(statistical correlations, not understanding)

Position encoding MODIFIES existing dims
(same 8 dimensions before and after)