

Is this <b>Worthy of attention</b> ?	<b>Who is presenting this?</b> <i>Consider: qualifications, who they represent, bias, conflict of interest, what others say about their trustworthiness.</i>	Is the author qualified to discuss this information? If they are a scientist, do they have an educational and/or professional background directly connected to the topic? Who is funding the research or publication? Does the funding source introduce any conflicts of interest? Do an online search to find out what other sources say about the trustworthiness of the author and the claim.
	<b>What claim are they making or implying?</b>	Is there a claim that requires scientific evidence to support it? Is there a claim implied by the presentation of the data?
	<b>Why are they making this claim?</b> <i>Do an online search for purpose and motive.</i>	What is the purpose of the information? Is the intention clearly stated or implied? Is the point of view objective and impartial? Is there evidence that this is opinion, propaganda, marketing, or politically motivated?
Inspect the data.	<b>What data support this claim?</b>	Is specific evidence given? If not, why didn't they use evidence and where might we find evidence to support or refute the claim? If they provided evidence, what variables were measured? Who collected the data and for what purpose?
	<b>How are the data represented?</b> <i>Pay careful attention to the labels on the axes of graphs.</i>	What are the variables represented in the data presentation (charts, graphs, etc.)? Are the variables and axes labeled appropriately? Are the data presented in a straightforward way, or are they misleading? What relationships among the variables are suggested by the shape of the graph?
	<b>Is the graph appropriate?</b> <i>Consider: scale, units, cherry-picking, choice of categories, grouping, oversimplification, truncation, etc.</i>	Is the scale of the graph appropriate? Is the graph only showing data that the author wants you to see and excluding other relevant data (cherry-picking)? Is the graph showing too much data so that it is difficult to see relevant trends? Did the author truncate the data to make differences seem exaggerated (bar graphs should start at zero)? Did the author group data in a way so that categories or "bins" agree with their claim instead of grouping data in a different way?
Does this make <b>Sense</b> ?	<b>Are the data relevant and sufficient to support the claim?</b>	Is causation implied for a correlation without sufficient evidence or explanation? Can another variable account for some or all of the change? How could you design an investigation to test whether these variables could be interacting, controlling as many other variables as possible?
	<b>Are there signs that the data are biased?</b>	How and why was this sample chosen? Was it chosen for convenience? Did the author only use data that would support their argument to the exclusion of other relevant data? Is the sample size large enough to be representative?
	<b>Are there other ways to interpret the data?</b>	Without looking at the author's conclusion, how do you interpret the data? Does this match with the conclusion presented? Could other conclusions be arrived at through another interpretation?
	<b>How does this compare with other reliable sources?</b> <i>What do the experts say?</i>	Look at other reliable sources. Can you find other studies on the same topic? Is there consensus in the relevant field of study? Has the claim been debunked by a fact-checker like Snopes or PolitiFact? If most studies disagree with this one, which claim is supported by the strongest evidence and reasoning?
What <b>Emotion</b> is activated?	<b>How do the claim and evidence make me feel?</b>	If you feel a strong emotion, ask yourself what belief it challenges. Is the headline or title consistent with the data and reasoning? If an extraordinary or sensational claim is being made, are there sufficient data to support that claim?
	<b>Is this what I already believed before I read it?</b>	Humans have a natural bias to see things in a way that confirms their own beliefs. This confirmation bias makes it difficult for us to consider evidence that contradicts our beliefs.
	<b>What might make me change my mind?</b>	If you agree or disagree strongly with the author's conclusion, consider what it would take to change your mind. What kind of evidence? How much evidence?



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