

## QUESTION

It is important that we carefully consider the sources that we use within our work, to ensure that our points are supported with well-reasoned arguments and conclusions. Remember, just because a source is published (peer reviewed or otherwise), does not mean that their findings and conclusions fairly represent your subject area. Similarly, we need to check that sources we use in our arguments are relevant, reliable, valid and credible.

**Appraising quantitative research:** To critically evaluate quantitative research, you will need to keep asking yourself a QUESTION. Not all the examples below are applicable to every piece of research, and there might be others not included that you want to ask, however the important action that you must remember is QUESTION, QUESTION, QUESTION!

<b>Q</b>	<b>Question:</b> Does the research clearly describe what it is hoping to prove and why? Is it relevant? Is it meaningful? Are the conclusions based on factual evidence?
<b>U</b>	<b>Understanding:</b> Are the results clearly reported? Does the research clearly describe what statistical tests were used?
<b>E</b>	<b>External variables:</b> Is a control or comparison group used? How are the samples allocated to a treatment? Are there any inclusion or exclusion criteria applied? Are there any conflicts of interest reported?
<b>S</b>	<b>Samples:</b> How large is the sample and can it be used for reliable results? Does the research outline how the sample was collected? Where did the research take place (e.g multi-centre)?
<b>T</b>	<b>Time:</b> Over what time frame did the research take place? Are there any follow ups? Is the time gap appropriate?
<b>I</b>	<b>Intervention:</b> Does the research clearly describe any intervention used? Are any tools that are used for the intervention been tested and validated?
<b>O</b>	<b>Outcomes:</b> Does the research attempt to interpret the meaning of the results? Does the research apply the meaning of the results in practical terms? Are the conclusions credible based upon the research undertaken? Are there any other conclusions that could have been reached not reported?
<b>N</b>	<b>Now what:</b> Are the results sufficiently convincing to base practice on them? Are the results supported by other research? Where are the results published? Are there any limitations to the research highlighted?