

## GUIDES TO UNDERTAKING RESEARCH

### 2.2 Framing a Good Research Question

All projects have at their heart a Question that they are designed to answer. Asking the right question is, after all, the first step to solving a problem, but it goes further than that: a good research Question clarifies a project, and helps focus the thinking and planning. Constructing a research Question sounds straightforward but is usually not simple at all and, sadly, proper deliberation of the research Question is often overlooked. This has consequences, since if the Question is not clear and well thought through the whole project will be on shaky ground. It should be noted also that the research Question must be included in project reports, publications and research ethics applications, so must be clear and concise.

Another consideration at the outset is the source of the research Question – did a mentor or supervisor assign it? If so, it should not be taken for granted that it is cogent and well designed, although chances are that it is. Discussing the research Question in some depth with the mentor should be a real priority, and consulting other experienced colleagues about it is very worthwhile to get another perspective.

*A research Question needs precision (but not too much)*

It is very useful to be able to state the research question in a simple, short sentence. There may be exceptions but if it cannot be formulated in this way then it probably needs more thought. It must also sound coherent and make logical sense. One particular phrase to avoid would be “is important in”, which is hideously imprecise. Thus “is factor X important in process Y?” is no use at all. Better is something like “does factor X have a significant impact on procedure Y outcomes under condition Z?” or “among patient group X, does factor Y show a strong correlation with feature Z?”

*A research Question should not be too long*

As a rough rule, it should not stretch beyond two full lines of standard typed text. However, it may

have to be longer if a short preamble is needed for context. Or it may involve diseases with very long descriptors. If really necessary the Question can also be split into parts, and can refer to the outcomes of other projects. Just be sure it is appropriate and makes sense.

*A research Question should not be too vague or overarching*

Research projects need a reasonable timeframe and realistic expectation of resource access. Big, bold, vague concepts have no place, because the project must be completely feasible in the timeframe.

*A research Question is different to a seminar title*

Seminar titles tend to be bold and simply phrased to indicate the research area to be discussed even if that is broader than the subject of the seminar. It serves a different function to the research Question.

*A research question should not be too parochial or small*

Research conclusions by their nature extrapolate general or big things from smaller or more restricted things. That said, a research Question that is too obscure is unlikely to interest anyone.

### *Finding causes – do not to be tempted*

There are many types of causes, and most diseases (and disease processes) have many causes and risk factors. Do not be tempted to state or imply that you are looking to define the 'cause' of something. If you have a strong idea as to a putative cause, frame the question directly around that idea instead.

### *Questions point to the research aims*

In the preamble of a report or funding application research Question is stated in some form. This will naturally flow into a statement of the research aims

or objectives. One question may naturally spawn several aims, which is fine as long as it all makes sense and the connections are clear.

And lastly -

### *Try not to be boring*

If the research Question is answered, will anyone care? It can be a brutal question but it nearly always is a very useful one, and you should try it out. You should be the one to ask this question first, not the audience at your final presentation or the editor of the journal you approach to publish the work.

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