Exercises

# Chapter 4: Defining your scope

## Exercise 4-1: From starter questions to smarter questions:

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| **Starter question** | **SMART question** |
| *Example:*How can schools reduce their carbon footprint? | What initiatives have UK schools successfully used to tackle waste reduction?orDo sustainability awareness initiatives targeted at school children influence parental behaviours?orDo “walk to school” campaigns reduce obesity and traffic congestion? |
| *Enter your question:* | *Enter one or more SMART questions below:* |

If you are struggling to make your question SMART, consider box 4.1 (below).

*Box 4.1: The three elements of defining the scope*

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| WHO = who is the research question about?WHAT = what must I find out to answer the research question?HOW = how will the study impact the ‘who’? (what is the outcome?)Adapted from Ibrahim, 2008. |

## Exercise 4-2: Using a framework to focus your question

Choose a framework that best fits your research topic and formulate your own research question. So, if you’re using the PICOS model, consider:

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| --- | --- |
| **Population** |  |
| **Intervention OR Exposure** |  |
| **Comparison** |  |
| **Outcome(s)** |  |
| **Study Type(s)** |  |

## Exercise 4-3: Examining a review protocol

Using the review protocols from Table 4.6, or an example that you have identified yourself, consider:

1. What sources will be searched; would any of these sources be relevant to my topic?

2. What methodological papers do the authors cite that I might use in my own review?

3. What other decisions specified in the review protocol do I still need to make for my review? (some decisions relate to stages of the review covered later in this book).

***Table 4.6: Review protocol examples***

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| --- | --- |
| **Example A – a systematic review protocol** | Jackson, J., et al. (2020) Early childhood education and care-based healthy eating interventions for improving child diet: a systematic review protocol. *Systematic Reviews.* 9 181*.*<https://doi.org/10.1186/s13643-020-01440-4>(also registered at PROSPERO<https://www.crd.york.ac.uk/prospero>) |
| **Example B – a scoping review protocol** | Naidoo, K. & van Wyk, J. Protocol for a scoping review of age-related health conditions among geriatric populations in sub-Saharan Africa. Syst Rev 8, 133 (2019).<https://doi.org/10.1186/s13643-019-1055-z>Protocol published in *Systematic Reviews* |
| **Example C – a mapping review protocol** | Reisch, L. et al. (2019) Mitigating climate change in food consumption and food waste: A systematic map of behavioural interventions –a systematic map protocol.Protocol registered with the Center for Open Science:<https://osf.io/3cje4/?view_only=7a3062f2b5c6400692112bbd139d08a8> |

Now consider your own review and begin to fill in the review protocol template in Exercise 4.4.

## Exercise 4-4: The review protocol template

Start to fill in the review protocol template below for your own review (delete the notes from each section and replace it with your own text). Table 4.7 provides further information on which sort of information to include within each section in the review protocol template. You may find that you are only able to complete the first few sections at this stage. As you work through the remaining chapters of this book, you can add to each section of the template, ultimately creating a complete protocol. You will find it helpful to follow the Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) (Moher et al., 2015)[[1]](#footnote-1)

***Table 4.7: Instructions for completing the review protocol template***

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| **Background** |
| Your background should set the context for your review, introducing the reader to your topic, without needing specialist knowledge to understand the topic of research. You may include relevant current statistics and previous research, highlighting the importance of your review. |
| **Objectives** |
| Here you should outline the aims of your review and the research question(s) you are attempting to answer. |
| **Criteria for inclusion and exclusion of studies** |
| In this section, you should record how you will decide which studies to include and which to exclude. You will find it helpful to define eligibility by key concepts such as study design, population, intervention, etc., as below.  |
| **Types of studies**  |
| Which type of study design(s) are you going to include/exclude? For example, randomised controlled studies? cohort studies? qualitative studies? surveys? |
| **Types of populations** |
| Revisit your focused question and record the type(s) of the population you are going to include/exclude. |
| **Types of interventions or exposure** |
| Revisit your focused question and record the type(s) of intervention(s)/exposure(s) you are going to include/exclude. |
| **Types of outcome measures** |
| Revisit your focused question and record the type(s) of outcome you are going to include/exclude. If you have a broad outcome such as whether an intervention is ‘effective’ – you may want to define this further here. For example in the question: ‘Is e-learning effective in teaching undergraduate students information literacy skills’ – you may define effectiveness in terms of assignment marks and you would exclude any studies that did not measure this outcome. NB – it is possible to look at more than one outcome here. |
| **Setting/context (where applicable)** |
| If your research question applies to a particular setting or context, record which you will include/exclude here. For example, if you are only interested in studies taking place in a particular country, you can exclude studies from other countries. However, please be aware that this may limit your review too much, so you may also have to look at any comparable settings – for example, Europe rather than the UK. |
| **Search strategy for identification of studies** (see Chapter 5 for more details) |
| Record your methodology for finding studies:  |
| ● Electronic databases to be used – which sources will you search?● Other search methods – such as browsing electronic tables of contents and websites, reference checking, citation searching, etc.● Keywords and sample search strategy – here you should include initial ideas for search terms. You may also find it useful to provide an example search strategy from any scoping searches you have done. |
| **Study selection** |
| **Method of review (see Chapter 6)** |
| o Remember to include who will select studies and how they will do so. For example, if you are working within a project team you should state which project team members will select the studies and how any disagreements will be resolved. If you are conducting all aspects of the review single-handedly, a record that you will be selecting the studies. You may find it useful to record the process you will follow here – such as title sift, abstract sift, full-text sift, etc. (see Chapter 6 for further details). |
| **Assessment of methodological quality (see Chapter 6)** |
| o Here you record how you will assess the methodological quality of your included studies. Remember to include details of any specific checklists that you will use. |
| **Data extraction (see Chapters 7, 8 & 9)** |
| o What data will you extract? (variables, themes, etc.). If you plan to use/adapt an existing data extraction form you should record the details here. If you plan to design your own, state this intention here. |
| **Data synthesis (see Chapters 7, 8 & 9)** |
| o What will your data look like – qualitative or quantitative or a combination? |
| o How you will synthesise it – will you use narrative synthesis, thematic synthesis or some other method? Tables, figures or as text? |
| **Timeframe (see Chapter 2)** |
| List the stages of the review and outline how long each stage will take. This will help you set milestones by which you can assess your progress. |
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| Task | Timescale |
| Literature search |  |
| Study selection |  |
| Data extraction |  |
| Data synthesis |  |
| Writing-up review |  |

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1. Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P. and Stewart, L.A., 2015. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic Reviews*, *4*(1), pp. 1-9. [↑](#footnote-ref-1)