



PICOS/T, PEO, PICo, SPIDER Frameworks

Research question frameworks are commonly used in health related literature reviews to guide identification of useful publications. They provide inclusion/exclusion criteria against which to judge search results for the screening process.

Before having results to screen, they are useful in guiding your thoughts around the concepts you want to read about and the search terms which could retrieve publications on those concepts.

- Some research questions will have multiple entries for some headings, eg both parents and their children, or educators and the population they educate.
- Research questions may not lend themselves to populating all of the headings.
- Different research question frameworks have been developed for different types of research question, possibly discipline dependent.

A commonly used example in medicine is **PICOS/T**

Population/Participants [incl. Problem]

- What type of people are you interested in and what has to be wrong with them for research on them to be useful?

Intervention

- What has to have been done to the population for resulting publications to be useful to you?

Comparison

- Does research have to have included control groups/alternative interventions?

Outcome

- What has to have been the outcome a research group was trying to measure for their publication to be useful to you?

Study Type

- Are RCTs the only acceptable method for what you want to write about? If not, what approaches are acceptable?

Time

- Over what period of time do you want your population to have been measured/observed?

Examples are provided in the subsections to [3.2.4 Inclusion criteria, JBI Manual for Evidence Synthesis](#).

Similar headings which may help fully develop the scope of what the literature needs to address:

Population, Exposure, Outcome (PEO)

- Explore this further in [Kestenbaum, B. \(2019\) General considerations in epidemiological research, In: *Epidemiology and biostatistics: an introduction to clinical research*. 2nd edn. Cham: Springer Nature.](#)

Population, Phenomena of Interest, Context (PICO)

- Joanna Briggs Institute (JBI) advises PICO for eg its systematic reviews of qualitative evidence - [Section 2.6.2 Review question, JBI Manual for Evidence Synthesis](#)

Sample, Phenomenon of Interest, Design, Evaluation, Research (SPIDER)

- o Cooke, A., Smith, D. and Booth, A. (2012) Beyond PICO: The SPIDER Tool for Qualitative Evidence Synthesis, *Qualitative Health Research*, 22(10), 1435–1443. [DiscoverEd record](#)

Designed in 2002 for health policy questions:

ECLIPSe: Expectation (what does the search requester want the information for, eg Improvement or Information?), **Client Group, Location, Impact** (including how any change is measured), **Professionals, Service** (eg outpatient services, nurse-led clinics, intermediate care).

- o Wildridge, V. & Bell, L. (2002) How CLIP became ECLIPSE: a mnemonic to assist in searching for health policy/management information. *Health Information & Libraries Journal*, 19(2), 113-115. [DiscoverEd record](#)

Designed for “information practice” [information science / evidence-based librarianship] questions:

SPICE: Setting (of service), **Perspective** (whose?), **Intervention, Comparison, Evaluation**

- o Booth, A (2004) Chapter 6: Formulating answerable questions In: Booth, A. & Brice, A. (2004) *Evidence-based practice for information professionals: a handbook*, London: Facet. [DiscoverEd record](#)

The following online library guides, present more research question frameworks and provide suggested disciplines or question types for which they are best suited:

[Developing a research question: Frameworks \(University of Maryland\)](#)

[Using a framework to structure your question \(City, University of London\)](#)

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