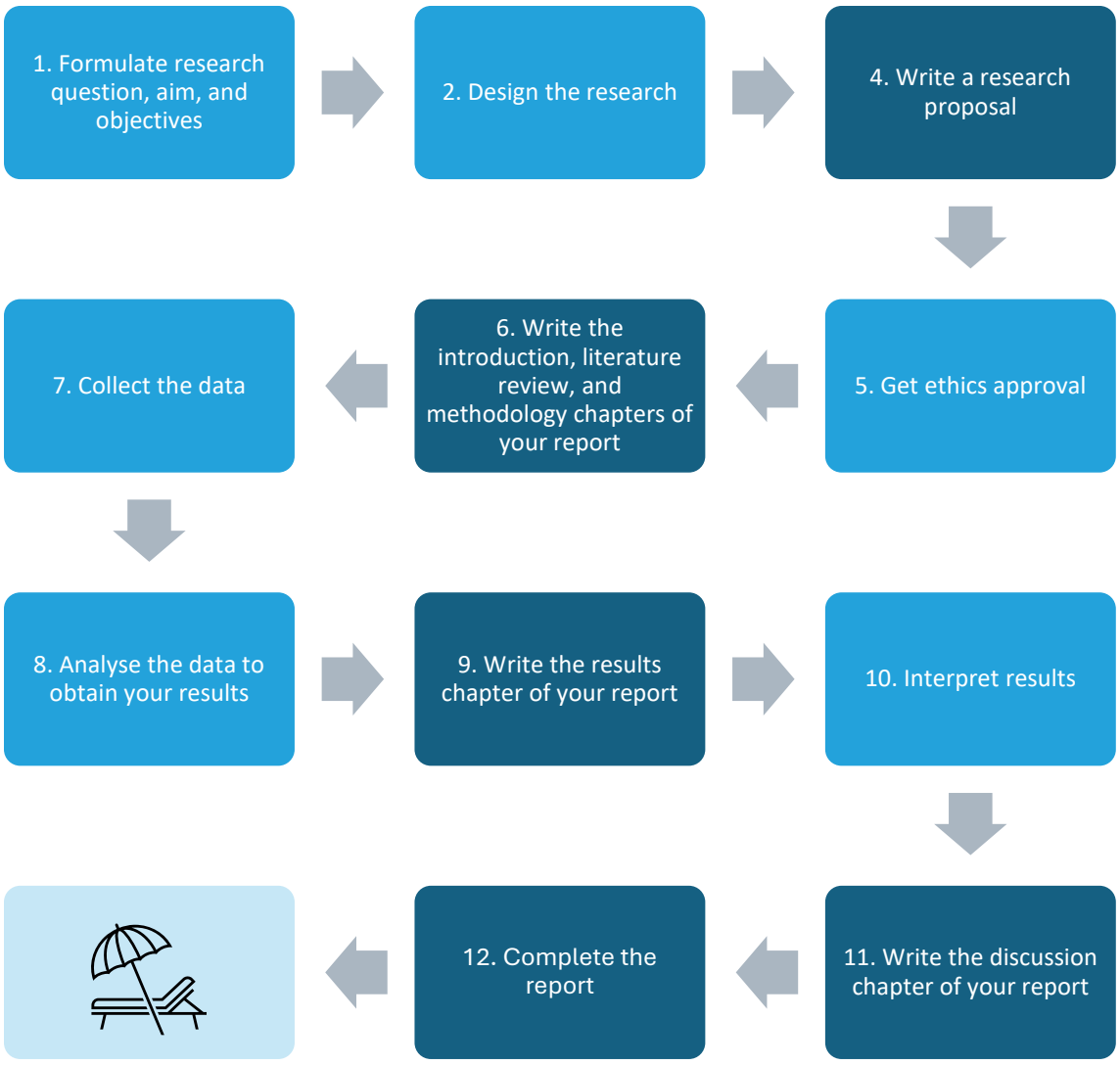
Research Process

In undertaking research you will develop

- time planning, organisational, and digital skills
- critical thinking, analytical, and problem-solving skills
- confidence in decision making
- academic writing skills

Overview of research and report writing steps



Research question, aim, and objectives

- Undertake a preliminary review of the existing literature to identify gap/s in the current research
- Consider
    - What problem or question needs addressing?
    - Why is it important (i.e., the significance of the research)?
    - How will your research contribute to addressing the problem?
    - What will be the scope of your research?
    - Who is your intended audience: Who would be interested in this research?

- Use a framework to formulate the research question, e.g., PICO, SPIDER, SPICE, FINER
- Write the research aim: One sentence outlining the purpose of your research
- Write the research objectives: Focused statements outlining what your research will achieve. Use verbs, e.g., analyse, examine, investigate, compare, evalute, assess, measure, identify, develop, etc.

Designing research

- Justify each research design decision with **references to articles and textbooks on research methodologies. Do not copy and reference other researchers' justifications.**
- Consider the following:
    1. Which **research paradigm** is suitable and why: positivism, post-positivism, interpretivism, pragmastism, kaupapa Māori, constructivism, critical theory, etc?
    2. Which **approach** will you take and why: inductive or deductive?
    3. Which research **methodology** is suitable and why: quantitative, qualitative, mixed methods, or Indigeneous? Note: Research reviews, except meta-analyses, are qualitative research.

4. Which research **methods** are suitable and why?
    - Research type: e.g., case study, ethnography, experiment, literature review
    - Data collection: e.g., survey, interview, focus group, literature search, observation

      Note: Data collection for reviews is literature search.
    - Data analysis: e.g., thematic analysis, statistical analysis

      Note: data analysis for reviews is usually thematic analysis.

Collecting data

- Follow the process outlined in your research proposal
- Document each step of your data collection

  Note: For research reviews, document the search terms, databases searched, number of articles returned and eliminated, and methods used to evaluate the literature.

Analysing the data

- Follow the process outlined in your research proposal
- Document each step of your data analysis

  Note: For thematic analysis, state the steps used to derive your themes.
- Use tables and diagrams to help you anayse the data as needed

Interpreting results

- Consider the meaning of your results:
    - What do your results mean in relation to the research question?
    - What do your results mean in relation to the existing research?
    - What is the relevance of your results for your intended audience, or how can they be applied?
    - How do your results answer the research question?
    - How has your research met the research aims and objectives?

Completing the report

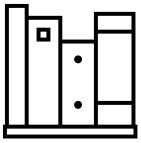
- State final conclusions and recommendations if appropriate
- Outline the limitations of your research and aknowledge biases
- Point to further research

Other relevant guides

- Research questions
- Research methodologies
- Research proposals
- Writing a Thesis
- Literature reviews
- Annotated bibliographies
- Research Reviews

Contact the EIT Librarians

for assistance to find books and articles on undertaking research and research methodologies



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