

Developing Your Research Question





Importance of a Well-Defined Focus

- A clear focus will help guide you at every stage of the research process.
- It will help you maintain alignment with your objectives, ensuring your study remains coherent and organised.
- By clearly defining the research goals, it reduces ambiguity and can enhance your study's impact.



Importance of a Well-Defined Focus

- A well-defined focus helps you identify practical constraints like time, resources, and data availability, ensuring your study is achievable.
- You can prioritise the most significant aspects, avoiding unnecessary work.



Importance of a Well-Defined Focus

- With a clear focus, you can pinpoint the most relevant data sources, saving time and avoiding irrelevant information..



Choosing a Research Topic

- Aligning research with your academic and professional interests ensures personal motivation and sustained engagement throughout the study.
- A topic closely related to your expertise, career or passion is more likely to result in deeper insights and high-quality outputs.
- It allows you to build on your existing knowledge base.



Choosing a Research Topic

- Understanding the research context involves identifying emerging trends, challenges, and innovations in the chosen field.
- Addressing current issues makes your research timely and increases its practical relevance.
- Identifying gaps in the literature is equally critical. You should review existing studies to find areas with limited or inconclusive findings, ensuring your work contributes new insights to the field.

Choosing a Research Topic

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Feasibility

The question should be practical to answer within the constraints of time, budget, expertise, and available resources.

Interest

The topic should be engaging to the researcher and stakeholders, ensuring sustained motivation and relevance.

Novel

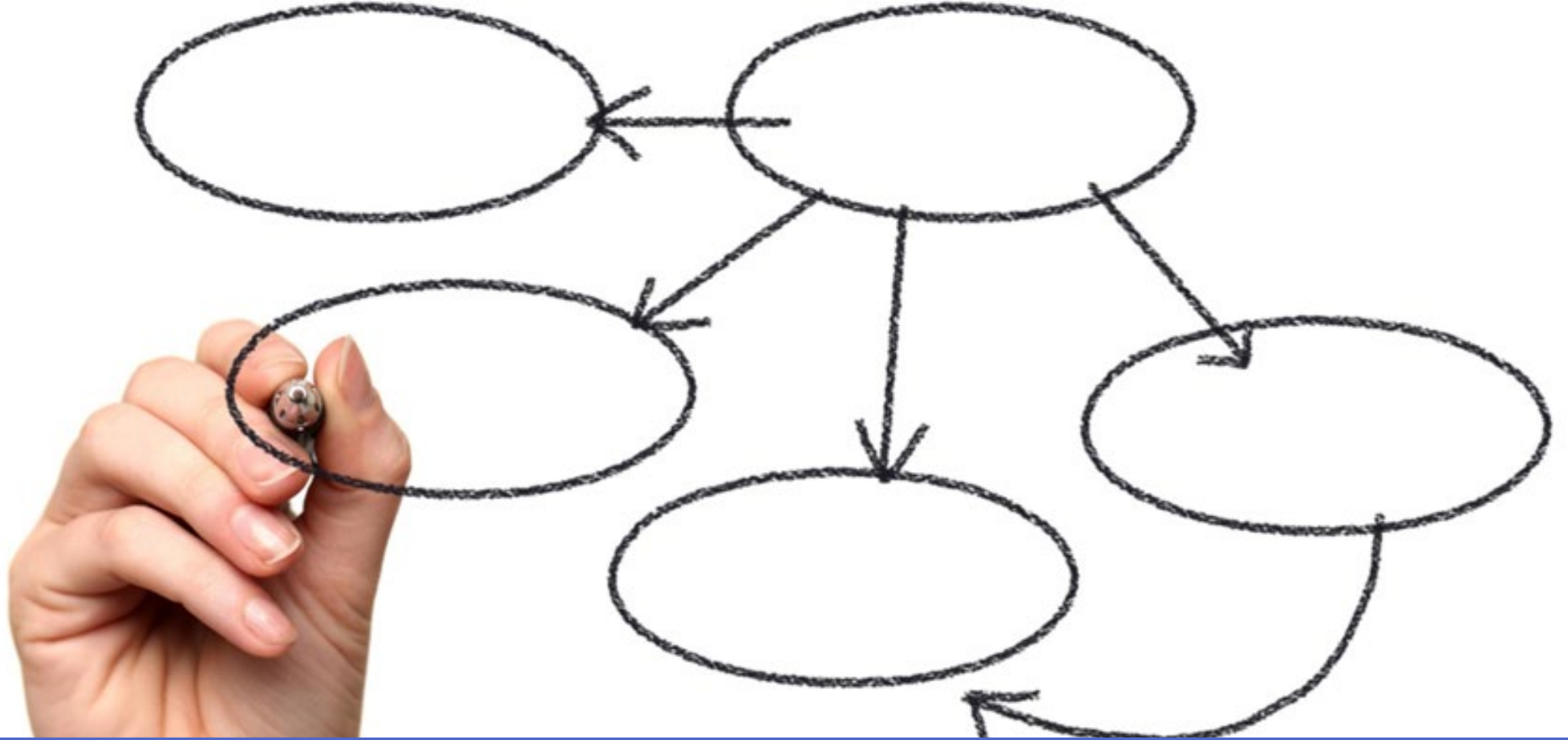
The question should contribute new knowledge to the field, address a gap, or provide a fresh perspective.

Ethical

The study must meet ethical standards, ensuring the research does not harm participants or violate ethical principles.

Relevant

The question should align with current needs in the field or society, ensuring the research has practical and academic significance.



Practical Tips

- Mind mapping is a powerful visual technique that can help you organise ideas and information in a structured and intuitive way.



Practical Tips

- Seek feedback from peers and mentors to refine your ideas and gain different perspectives.
- Consult industry professionals or domain experts to ensure your topic is relevant and practical.

Narrowing Down the Topic

- Start with a wide topic that aligns with your academic field or societal relevance
- Focus on a manageable context, such as a specific project type, geographic area, or technology.
- Broad topics lack focus and can become unmanageable.
- Narrow topics may lack depth or sufficient data.

The background of the slide is a light gray surface covered with numerous small, light-colored wooden blocks. Each block has a dark gray question mark printed on its top face. The blocks are scattered across the entire area, creating a textured, conceptual background for the text.

Characteristics of a Good Research Question

- **Clear:** The question should be straightforward, avoiding complex or vague language.

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- **Focused:** The question should target a specific issue, ensuring the research remains manageable.
- **Researchable:** The question must be answerable using existing methods, resources, and data collection techniques.

Types of Research Question

Descriptive

- Seeks to observe and detail a phenomenon.

Types of Research Question

Comparative

- Compares two or more groups, interventions, or situations.

Types of Research Question

Exploratory

- Examines underlying causes, relationships, or mechanisms.



Defining Research Aims

- Provide a high-level summary of what you seek to achieve.
- They outline the overall goals of your study, giving direction to your research process and guiding the specific objectives.
- They set the stage for more detailed research questions and objectives.



Defining Research Aims

- “To evaluate the effectiveness of sustainable construction materials in reducing environmental impact in urban development.”



Defining Research Aims

- “To investigate the role of digital technologies in improving safety standards on construction sites.”



Tips for Writing Aims

- Use Broad, Overarching Statements
- Research aims should be general enough to allow flexibility but focused on the core purpose of the study.
- Keep the language clear and straightforward, summarising the direction of your research without diving into specific details.



Tips for Writing Aims

- Align with the Research Question
- Ensure that the research aims directly address and align with the specific research question.
- The aim should provide a framework for answering the research question or contributing to solving the problem posed.

Defining Research Objectives

- The primary aim of research objectives is to break down complex, construction-related problems into manageable, actionable steps.
- This allows you to focus on specific aspects of a larger issue and systematically gather relevant data, analyse it, and draw conclusions.
- Clear and concise objectives provide direction to the research process, ensuring that the study remains focused and purposeful.



Characteristics of Good Objectives

- Effective research objectives should adhere to

SMART



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- **Relevant:** Ensure the objective directly addresses an important issue or problem in construction
- **Time-bound:** Clearly define a timeframe for completing the objective to ensure the research is conducted efficiently.



Structuring Objectives

When formulating research objectives, they should begin with an actionable verb to define the task clearly.

Common verbs include "To analyse," "To assess," "To compare," "To evaluate," and others.





“To evaluate the effectiveness of sustainable construction materials in reducing environmental impact in urban development.”

- To identify the most commonly used sustainable construction materials in urban development projects.



“To evaluate the effectiveness of sustainable construction materials in reducing environmental impact in urban development.”

- To identify the most commonly used sustainable construction materials in urban development projects.
- To assess the environmental impact of conventional versus sustainable materials in terms of carbon emissions and resource consumption.



“To evaluate the effectiveness of sustainable construction materials in reducing environmental impact in urban development.”

- To identify the most commonly used sustainable construction materials in urban development projects.
- To assess the environmental impact of conventional versus sustainable materials in terms of carbon emissions and resource consumption.
- To analyse the cost-effectiveness of sustainable materials in urban construction projects.