

HOW TO WRITE A RESEARCH PLAN?

1. What is a research plan?

A research plan is a short document, which sets out initial thoughts on a research project in a logical and concise manner. It is a concept paper, which may be shared, in confidence, with peers and potential collaborators. Several iterations of a research plan may be necessary before it may be considered as complete.

The research plan typically includes a review of the relevant literature, a description of the research questions or hypotheses, a methodology section that outlines the procedures to be followed, a data analysis plan, and a timeline for completing the study. It may also include a discussion of the expected impact or implications of the study and any potential ethical considerations that need to be addressed.

Overall, a research plan serves as a blueprint for conducting a study, ensuring that all necessary steps are taken to collect valid and reliable data and to reach meaningful conclusions based on that data.

2. The research question

All research should start with one or more research questions. The research question seeks to address the general point of ‘What am I proposing to do?’ It sets out a problem that can be challenged, examined and analysed in a logical and systematic manner. Superficially this may seem like a simple task but the construction of a well-defined research question can have a big impact on the design of a research proposal, its chances of securing funding, and the likelihood of a successful outcome. The research question needs to be focussed, relating to a specific study in a defined situation. The starting point for the research question comes from a detailed knowledge of the researcher; what he/she has learned from studying the literature; and what gaps or problems have been identified that may be solved by the research to be undertaken. The chosen research project should be both important and practicable. One question that the researcher should ask him/herself is ‘will my research question’ avoid the response of ‘so what?’

Research areas/questions (Examples):

- *What trade-offs, co-benefits and other inter-linkages climate policy measures create in perspective of reaching the Sustainable Development Goals?*
- *What is an effective method for developing climate policy strategies, considering these effects, which can improve overall policy coherence for sustainable development?*

- *What aspects of justice, moral and fairness should be considered by policy makers when designing climate change mitigation and adaptation plans?*

3. The hypotheses

A well-thought-out and focused research question leads directly into one or more hypotheses. What predictions can the researcher anticipate will arise as a consequence of answering the research question? Testing the hypotheses (predictions) becomes the justification for the research. Hypotheses are much more than hunches or guesses. They have their foundation in scientific knowledge and principles backed up by the experience and vision of the researcher. Strong hypotheses:

- Provide insight into the research question
- Are testable and measurable by the proposed experiments
- Are capable of being challenged and addressed by others using a different approach. Normally, no more than three primary hypotheses should be proposed for a research study. A proposal that is hypothesis-driven is more likely to be supported than a “fishing expedition” or a primarily descriptive study.

Example:

"Increasing the frequency of social media posts will lead to a higher engagement rate among our target audience, ultimately resulting in a higher conversion rate and increased sales revenue." 😊

"Our company's new marketing campaign will be successful because we have a great product, a strong brand, and a large budget." 😞

4. Aims and objectives

In simple terms the aims of the research proposal are to test the hypotheses that have been developed. Therefore, there should be one aim for each hypothesis. The aims are short, broad statements of the outcomes desired from testing each hypothesis. Aims should emphasise what is to be accomplished and not how it is to be accomplished. If the research question and the hypotheses are well constructed then the aims will be relatively simple to compose.

There is a useful mnemonic to help construct appropriate objectives. They should be

SMART:

Specific – target a specific area for improvement

Measurable – as an indicator of progress

Achievable – within the local research environment

Relevant – to the aim that it qualifies

Time-related – specify when the result(s) can be achieved

Example:

"To increase sales of our new product by 15% within the first six months of its launch by targeting customers aged 25-40 in urban areas through social media and influencer marketing." 😊

"to find ways to become an industry leader." 😞

5. Research design

In a short research plan it is not necessary to detail all the investigations that will be performed. The research design is the framework created to enable the researcher to map out the logical sequence of investigations to be performed to achieve each of the objectives. As part of this process the researcher should list all the equipment and consumables that will be required and to identify any items that will need to be obtained in order for the research to proceed. This process will enable the researcher to reassure him/herself that all the investigations are practicable within the research environment and the timescale allowed for the research. It will also provide sufficient information for collaborators and peers to understand the plan of investigation. There are many ways to classify research design. However, such theory can be confusing and the researcher will do well to focus on the particular framework of investigations needed for his/her study. A flowchart diagram is a useful way to set out the research design.

6. References

1. The 17 goals. Department of Economic and Social Affairs Sustainable Development. URL: <https://sdgs.un.org/goals>
2. Miola, A., Borchardt, S., Neher, F. and Buscaglia, D., Interlinkages and policy coherence for the Sustainable Development Goals implementation: An operational method to identify trade-offs and co-benefits in a systemic way, EUR 29646 EN, Publications Office of the European Union, Luxembourg, 2019