FROM IDEA TO DESIGN:

CREATING A RESEARCH QUESTION AND CHOOSING A RESEARCH DESIGN

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| Research motivation:   * Social science principles and methodology * Personal interests: Curiosity, research interests, social interests * Available resources: Funding, contracts, institutional support |

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| Identify a general topic: Describe an idea about the purpose of the research |

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| Review relevant literature:  Establish an overview of relevant previous research, identify gaps in previous research |

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| Specify a research question:  Formulate more specific topics, questions or hypotheses |

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| Justify the research question:  Describe the importance of the research for science and society |

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| Clarify the research question:  Make the research question more precise and operational |

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| Specify units of analysis and types of information:  Define sample of units or participants, and types of information |

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| Select type(s) of data:  Choose a qualitative, quantitative or mixed methods approach |

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| Select data sources and data collection method(s):  Choose observation of actors, questioning of respondents, and/or content analysis of documents |

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| Establish ethical foundations:  Identify potential ethical issues, ask for advice, apply for clearance or permission |

FROM IDEA TO DESIGN: REFERENCES, EXPLANATIONS AND EXERCISES

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| ***From idea to design*** | ***References to the book,***  ***and to Sage Research Methods/Research Planner*** | ***Explanations*** | ***Exercises*** |
| ***Research motivation*** | Chapter 3  <https://methods.sagepub.com/project-planner/philosophy-of-research> | In the initial stage of a study, an idea about the purpose of the study is described.  The idea depends on a number of factors, including scientific and methodological principles, personal interests, available resources and politics of research. | 1. Identify and describe a general topic for a new study that you would like to conduct. 2. Reflect on why you would choose this topic, and how realistic it would be to get funding or other support for conducting this study at your university. |
| ***Identify a general topic*** | Chapter 4  <https://methods.sagepub.com/project-planner/defining-a-topic> |
| ***Review relevant literature*** | Chapter 4 and 5  <https://methods.sagepub.com/project-planner/reviewing-the-literature> | In the next stage, relevant literature from previous research is reviewed, in order to develop the broad idea into a more specific research question, which is related to gaps in previous research, justified in relation to science as well as society and gradually clarified and made more precise.  In this process, the researcher moves back and forth between the literature and the formulation of the research question.  Different types of research questions may be formulated, depending on differences between inductive and deductive research, qualitative and quantitative research, as well as areas with little previous research and areas with much previous research.  In some qualitative research, it may be a major purpose of the study to develop a more specific and precise research question for further the research. | 1. Do a literature search to identify relevant previous research in the area to which the chosen topic is related. 2. Review the most important literature in the area to get an overview of relevant previous research and identify possible gaps in this research 3. Use this review to specify and clarify a more precise research question on the chosen topic. 4. Discuss, with reference to the literature review, how this research question can be justified in relation to science and society. |
| ***Specify a research question*** | Chapter 4  <https://methods.sagepub.com/project-planner/developing-a-researchable-question> |
| ***Justify the research question*** |
| ***Clarify the research question*** |
| ***Specify units of analysis and types of information*** | Chapter 7 and 8  <https://methods.sagepub.com/project-planner/research-design> | In the following stage, an adequate research design is chosen. Based on the research question the units of analysis are specified, and it is determined what types of information about these units are needed. The selection or sample of units or participants to be included in the study is defined, and it is determined whether the study should be based on qualitative, or quantitative data or a combination of both data types. Furthermore, it is decided whether the data collection should be based on observation of actors, questioning of respondents, content analysis of documents, or a combination of data sources and data collection methods.  These decisions are not necessarily made in this sequential order. However, in the final description of the research design, all decisions are described, discussed and justified.  The research design may be further developed into a more practical research plan. | 1. Specify the units of analysis and the types of information that are needed for examining the research question. 2. Clarify whether the study should be based on qualitative data, quantitative data or mixed methods, and discuss why this choice of data type(s) is made. 3. Clarify whether the study should be based on observation of actors, questioning of respondents, content analysis of documents or a combination of data sources and data collection methods, and discus why this choice is made. 4. Define the selection or sample of actors, respondents, or documents to be included in the study, and discuss why this selection is adequate. |
| ***Select type(s) of data*** | Chapter 6  <https://methods.sagepub.com/project-planner/research-design> |
| ***Select data sources and data collection method(s)*** |
| ***Establish ethical foundations*** | Chapter 3  <https://methods.sagepub.com/project-planner/research-ethics> | Before the data collection starts, all potential ethical issues involved in the research design are identified and handled. Colleagues, supervisors, or ethical committees are asked for advice. It is ensured that the study will comply with all ethical guidelines, such as applying for clearance or permission, protecting the rights of participants, and securing the safety of researchers.  The description of these ethical foundations is a part of the research design. | 1. Describe potential ethical issues involved in this study and discuss how they could be handled. 2. Identify ethical guidelines that are relevant for this study. 3. Discuss whether any ethical clearance or permissions might be needed for this study. 4. Identify ethical committees that could be approached for ethical advice or applications regarding this study. |

FROM IDEA TO DESIGN: EXAMPLES OF QUALITATIVE AND QUANTITATIVE STUDIES

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| ***From idea to design*** | ***Example of a qualitative study:***  Anåker, Anna, Maria Nilsson, Åsa Holmner and Marie Elf (2015): “Nurses’ perceptions of climate and environmental issues: A qualitative study”, *Journal of Advanced Nursing* 71(8):1883-1891. | ***Example of a quantitative study:***  Stickley, Andrew, Ai Koyanagi, Bayard Roberts, Yevgeniy Goryakin, and Martin Mckee (2015): “[Crime and subjective well-being in the countries of the former Soviet Union](https://bibsys-almaprimo.hosted.exlibrisgroup.com/primo-explore/fulldisplay?docid=TN_swepuboai:DiVA.org:sh-28623&context=PC&vid=UBB&lang=no_NO&search_scope=default_scope&adaptor=primo_central_multiple_fe&tab=default_tab&query=any,contains,a%20survey%20STUDY&sortby=rank&facet=topic,include,Social%20Sciences&facet=creator,include,Koyanagi,%20Ai&offset=0)**”**, *BMC Public Health* 15:1010. |
| ***Research motivation*** | Funding was received from a research group at a Swedish university (p.1890). | Funding was received from different sources (p. 8). |
| ***Identify a general topic*** | It is not described in the article whether, or how, a general topic was identified before the research question was formulated. | It is not described in the article whether, or how, a general topic was identified before the research question was formulated. |
| ***Review relevant literature*** | A brief literature review is presented in the section “Introduction”, in particular in the subsection “Background”.  It is pointed out that the current study will “address a previously unexamined area of research” (p.1884), and that “few studies have been published that analyse” the topic of the current study (p. 1885). | A brief literature review is presented in the section “Background”.  In the “Abstract” it is summarized that criminal victimization and subjective well-being “have both been linked to health outcomes, although as yet, comparatively little is known about the relationship between these two phenomena” (p. 1). |
| ***Specify a research question*** | “The aim of this study was to explore nurses’ perceptions of climate and environmental issues and examine how nurses perceive their role in the creation of sustainable health care.” (p. 1885). | To examine the association between different types of crime and subjective well-being in the former Soviet Union. See the “Abstract”. |
| ***Justify the research question*** | The research question is justified in relation to both science and society, with reference to the international relevance of sustainable nursing work, and the lack of previous research in this area. See the “Introduction”, and particularly the two last paragraphs of the subsection “Background” (p.1885). | The research question is justified in relation to science, mainly research on health conditions, and in relation to society, mainly social conditions in countries in the former Soviet Union. See the section “Background”. |
| ***Clarify the research question*** | The research question is not further clarified in the article. | Based on the literature review, the research question is clarified like this: To determine “whether two forms of crime, violence and theft, were associated with subjective well-being (i.e. happiness and life satisfaction) in this section [the former Soviet Union], and whether associations varied in the nine countries included in the study.” (p. 2) |
| ***Specify units of analysis and types of information*** | The units of analysis are registered nurses. A strategic sample of nurses in various types of healthcare in a county in Sweden was used in the study. Information was needed about the nurses’ perceptions of climate and environmental issues as well as their role in sustainable development. See the section “The study”. | The units of analysis are persons above 18 years of age living in nine selected former Soviet Union countries. A probability sample of the adult population in each country was used in the study. See the section “Study participants”. Information was needed about the persons’ subjective well-being and criminal victimization, in addition to several “control variables”, including age, marital status, education, economic situation, and alcohol consumption. See the section “Study variables”. |
| ***Select type(s) of data*** | The study is described as “a qualitative, descriptive explorative study” (p. 1885). | The study is a quantitative survey study. See the section “Methods” |
| ***Select data sources and data collection method(s)*** | The sampled nurses were respondents in in-depth (unstructured) interviews and participants in focus group discussions (p. 1885). | The sampled persons were respondents in face-to-face structured interviews based on questionnaires (p. 2). |
| ***Establish ethical foundations*** | Approval was granted from the university’s Ethics Committee. Informed consent was obtained from all participants. See the section “Ethical considerations”. | Ethical approval was obtained from the university, and the survey was conducted in accordance with the Helsinki Declaration. See the section “Ethical approval”. |