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## Research Design Canvas

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**Abstract** This chapter focuses on describing how to go about designing a research project. First, we will learn about framing the research study as a *project*. Then, we will be introduced to the *research design canvas*. While the details are specific to socio-technical grounded theory (STGT) studies, the research design canvas or template can be used for research project design in general. Next, we will learn about the 10 elements of the research design canvas, including the forming of the *research team*, identifying the *domain and actors*, selecting the *phenomenon* and *topic* to investigate, carefully assessing *research ethics* and considering the *research values*, formulating the guiding *research questions*, acknowledging the team's *research philosophy*, deciding on the initial *research protocols* including data, techniques, and tools, and listing the desirable *research impact*. The chapter concludes by describing a *pilot study* to apply and refine the above elements of the research project design.

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### 4.1 The Research Project

A project is defined as “a temporary endeavor undertaken to create a unique project service or result” by the PMBOK® Guide—fourth edition (Institute, 2008). In simple terms, a project is a finite entity with a defined beginning and end within which the

key aims and objectives are achieved and progress is actively tracked and risks managed. A research project is no different. Designing a research project involves designing the research context in which the study will occur as well as the project management aspects to monitor and accomplish.

Defining and treating our socio-technical grounded theory (STGT) research study as a *project* is desirable as it helps us to be professional in our approach and ensure overall success. It gives us a common vocabulary to refer to associated aspects, such as the aims, objectives, and timeline, the milestones to mark and track progress, the budget, the roles of people involved and expected to benefit, and the expected outputs. It enables us to be aware of and manage them well. It also prepares us for future projects, so we can apply our learning and optimise processes.

When designing an STGT research project, we also need to consider the scope of the study in terms of its length and expected outcomes, as well as the most appropriate application of STGT in the project. For example, a research study aimed at developing a theory can be designed as a small-scale full STGT study spanning between 6 and 18 months or as a large-scale full STGT study lasting for up to three to 4 years. The latter is likely to result in multiple theories. STGT can also be applied in a limited capacity, as *STGT for data analysis*, to analyse qualitative data as part of a research study conducted using another overall research method, such as case study, ethnography, or survey research. The *STGT Application Selection Guide* in Chap. 3 STGT—An Overview can be consulted to make an appropriate selection.

## 4.2 The Research Design Canvas

Designing a research project requires thinking about and planning for a number of aspects. To ease this task for novice and experienced researchers, I present the *research design canvas*,<sup>1</sup> a template for designing research projects, depicted in Fig. 4.1. There are 10 elements of the research design canvas: *research team*, *domain and actors*, *research topic*, *research ethics*, *research values*, *research questions*, *research philosophy*, *research protocols*, *research impact*, and *pilot study*. The template includes examples of what goes under each element of the canvas.

To use the research design canvas, researchers can fill each element with details specific to their project. The order of filling in the elements is likely to vary from project to project, typically starting with the elements that are clear and come easiest to the researchers. In some cases, the research team is the first element to be finalised followed by selecting a research topic and questions. In other cases, the research domain and topic may have been established early as part of an advertised research project and the team may be built up subsequently.

<sup>1</sup> The format of the Research Design Template is inspired by the Business Model Canvas that provides a template for designing new business models (Osterwalder & Pigneur, 2010).