

## Article-based PhD theses at LANDSAM: Guidelines for the Introductory Essay

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### Introduction

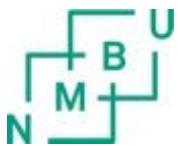
The aim of these guidelines is to aid PhD candidates in understanding the purpose of the Introductory Essay, its various elements, and formal requirements. Formal requirements are given in § 10-1 of the NMBU Regulations, in effect from 1 July 2020, as follows:

*(3) The thesis may consist of a monograph or a compilation of several pieces of work in the form of scholarly manuscripts and/or articles. If the thesis consists of several part-works, the thesis must contain an introductory chapter ('kappe') which from an overall perspective, summarises and collates the research questions and conclusions presented in them. The PhD candidate must be the sole author of this introductory chapter.*

The Introductory Essay should thus accomplish the following tasks:

- Synthesize the material provided in the separate articles/papers: demonstrate how the various articles relate to the same broad issues and debates; indicate how the topics and themes covered in the articles form a coherent whole in terms of scientific perspective and approach; specify how the methods employed may illuminate different aspects of these issues and debates, within the chosen perspective.
- Delineate the academic fields and disciplines relevant to the thesis: indicate the body of scientific literature relevant to the objectives and issues covered in the thesis, including both empirical and theoretical contributions; explain how and why this delineation came about, i.e. why certain fields were included or excluded; provide an exhaustive and effective overview – “state of the art” – of the literature deemed to be relevant to the chosen delimitation of the field of research.
- Describe, in detail, the theoretical approach, research strategy, and specific methods used in the research, and explain the reasoning behind these choices.
- Summarize articles, lessons, and conclusions: provide brief summaries of the separate articles; summarize lessons and conclusions in a logical sequence, and how these relate to empirical and theoretical literature within the field.

It is essential that the Introductory Essay meets these requirements and fulfills these tasks. It is not sufficient that each of the separate articles is of a high quality, has been published, or been accepted for publication. If the synthesizing chapter is clearly unsatisfactory judged against the above stipulations, the thesis should not be accepted.



## Elements of the Introductory Essay

The total length of the Introductory Essay should normally be 50–80 pages. The structure and content of the Introductory Essay must be adapted to each specific project. The structure suggested below serves as an example, not a rigid framework to be mechanically duplicated. In our example, the Introductory Essay includes the following elements:

1. Summary of the Thesis
2. Introduction, Background and Status of Knowledge
3. Theoretical Framework
4. Methodology
5. Summary of Articles
6. Results and Discussion
7. Conclusions
8. References

1. *Summary of the Thesis* in Norwegian and English. Each summary should comprise 400-600 words and should identify the original scientific contribution of the thesis.

2. *Introduction, Background, and Status of Knowledge*. This section presents the main theme of the thesis, provides a justification for the choice of this theme, and an overview of the status of relevant knowledge. Aims/objectives and research questions belong in this section; these may be preceded by a problem statement. An overview of the status of knowledge should not only summarize the relevant literature but also present it in a logical sequence, base for example on the various approaches and arguments. In addition, the titles of the articles on which the thesis is based should be listed, as well as their publication status.

3. The *Theoretical framework* presents the overarching theoretical approach. This part may go deeper into theories presented or assessed in the separate papers, and in particular the connections between them. Here, it is important to operationalize and specify how theory and key concepts are applied later in the thesis. The theories reviewed in this section, as well as the relevant literature canvassed in Section 2, may be used to further elaborate research questions, or to derive specific hypotheses (as required, depending on focus and discipline).

4. *Methodology* should be given a central place in the Introductory Essay. The research strategy, and the specific choices involved in arriving at this strategy, should be discussed in this section. Implications of strategy and specific choices with respect to the philosophy of science should be discussed; does the strategy place the thesis within a recognizable scientific tradition or a combination of traditions? If relevant, provide reflections on your own role as researcher and implications for data collection, analysis, and dissemination. Also, when relevant, the study area should be described, as well as processes of case selection, site selection, sampling, and data collection. The quality of the data and possible limitations, as well as the way in which the data have been analyzed, should be discussed.



Reflections on research ethics – related to research strategy, data collection, data management, and potentially sensitive material – belongs in this section. Be specific about ethical challenges faced and how they were resolved.

5. *Summary of Articles*. One summary for each article; each summary 300-500 words.

6. *Results and Discussion*. Here, the aim should be to synthesize the results of the thesis and to indicate their contribution to relevant scientific fields. Harmony or tension between the conclusions reached in the different articles must be discussed to clarify the overarching conclusions that may be drawn from the thesis as a whole. Theoretical implications of the results should be elaborated – do the findings support certain theories, undermine others, invite modifications of existing theory, or point towards entirely new conceptualizations? Is further research required, and if so, in which areas?

7. *Conclusions*. This section should be brief and respond directly to the problem formulation and associated research questions (and, when relevant, hypotheses). The thrust of the overall argument across the separate articles must be clarified, and the unique contribution of the thesis to its field of research should be discussed and explicitly accounted for. Policy recommendations may be relevant.

8. *References*. A list of publications, documents, or other material cited in the Introductory Essay.

*Appendices* are not part of the Introductory Essay; they should be placed at the end of the compendium, after the full-text articles. Interview guides or questionnaires should be included as appendices.