

# Thesis styles

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# Purpose of the thesis

- Demonstrate familiarity with the thesis topic
- Demonstrate ability to think scientifically
- Demonstrate mastery of the necessary research methods, including data handling and statistical analysis
- Demonstrate proficiency in academic writing
- Demonstrate proficiency in presentation skills (tables, figures, and graphs)
- Thesis style adopted should have all these features

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# Two basic styles of research or knowledge

- Objective (or nomothetic)
  - approach often quantitative
  - tendency to generalize (derive laws)
  
- Subjective (or idiographic)
  - approach often qualitative
  - tendency to specify (case studies)

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# Both styles require a systematic approach

- Rationality and clear thinking (rationalism)
- Empirical observation and experiment (empiricism)
- Combining empiricism with rationalism, positivism, is the  
basis of the scientific methodology

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# Main thesis styles

- Survey
- Experimental
- Case study
- Historical
- Correlational
- Evaluation research

➤ A thesis may include more than one of these styles

# Survey based theses

- Gather information from a group or a sample of a group
- Information often gathered by interviews or questionnaires
- Sampling needs to be good (challenging)
- Low response rates
- Subject may try to please the interviewer
- Difficult to prove causality
- Answers to factual questions more reliable than to questions of attitude, belief, opinion

# Theses using experimental method

- Mostly used in physical sciences
- Formulation of statistically testable hypothesis
- Dependent and independent variables; cause and effect
- Accuracy and Precision issues
- Control (challenging with people - social sciences, medicine)

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# Theses based on a case study

- A study concerning one particular happening or case done in a meticulous and systematic way
- Care that it isn't just a description
- Considered "qualitative" but quantitative techniques can be used
- Hypotheses emerge from study
- Needs good conceptual framework at the start

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# Theses using historical research

- Uses historical or documentary sources of information
- Access to data? Cost of data?
- Often combined with other styles (e.g. background in case study)
- Careful not to become a description of the documents/records
- Need clear series of questions, categories to evaluate the documents/records

# Correlational research

- Association between two or more variables
- Can not manipulate or control as in experiment style
- Correlation  $\neq$  causation
- Needs careful consideration of variables

# Evaluation research

- How is a policy/strategy/technique being carried out?
- Is it having the desired effect?
- Careful judgement skills are needed
- Clear criteria for success are needed

# Thesis style check list

## Has the student...

- Considered overall research style?
- Chosen and justified a methodology?
- Considered sampling design/issues?
- Identified the relevant factors, processes, properties, variables, classes/categories?

➤ Importance of thesis research plan and supervisor's role