

ENGLISH FOR INFORMATION TECHNOLOGY 5

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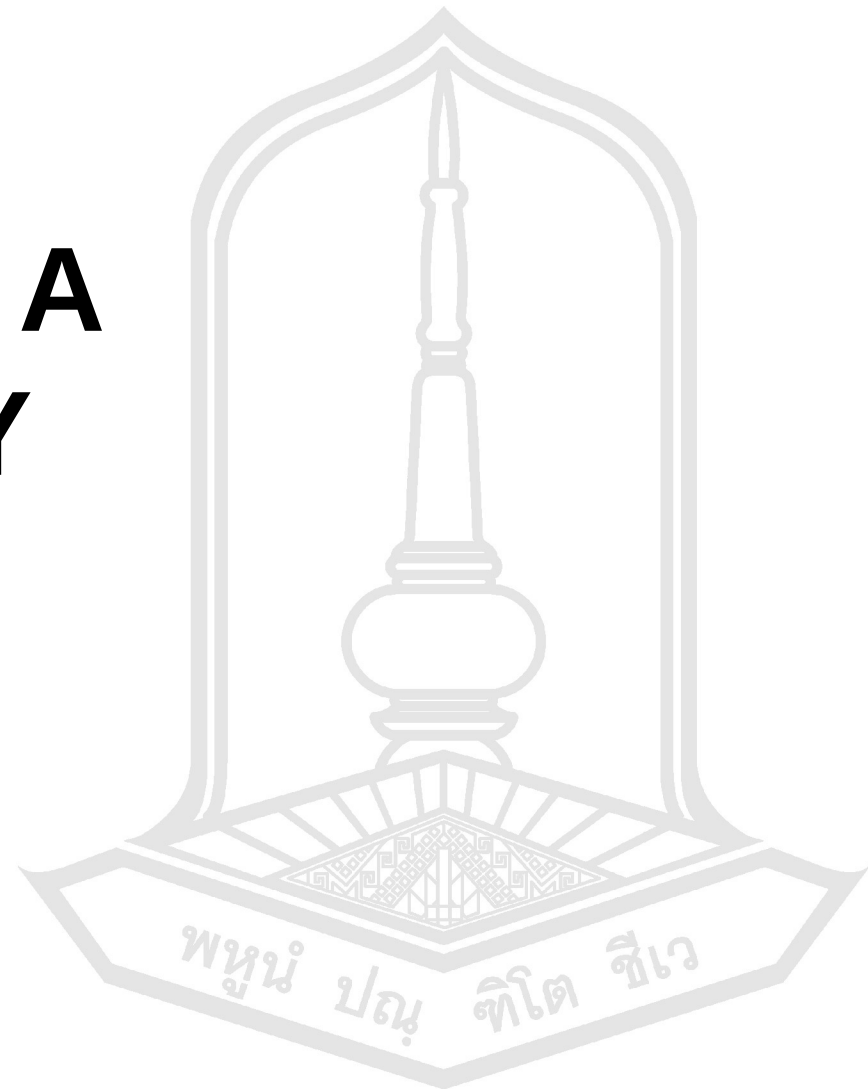


HOW TO WRITE A METHODOLOGY

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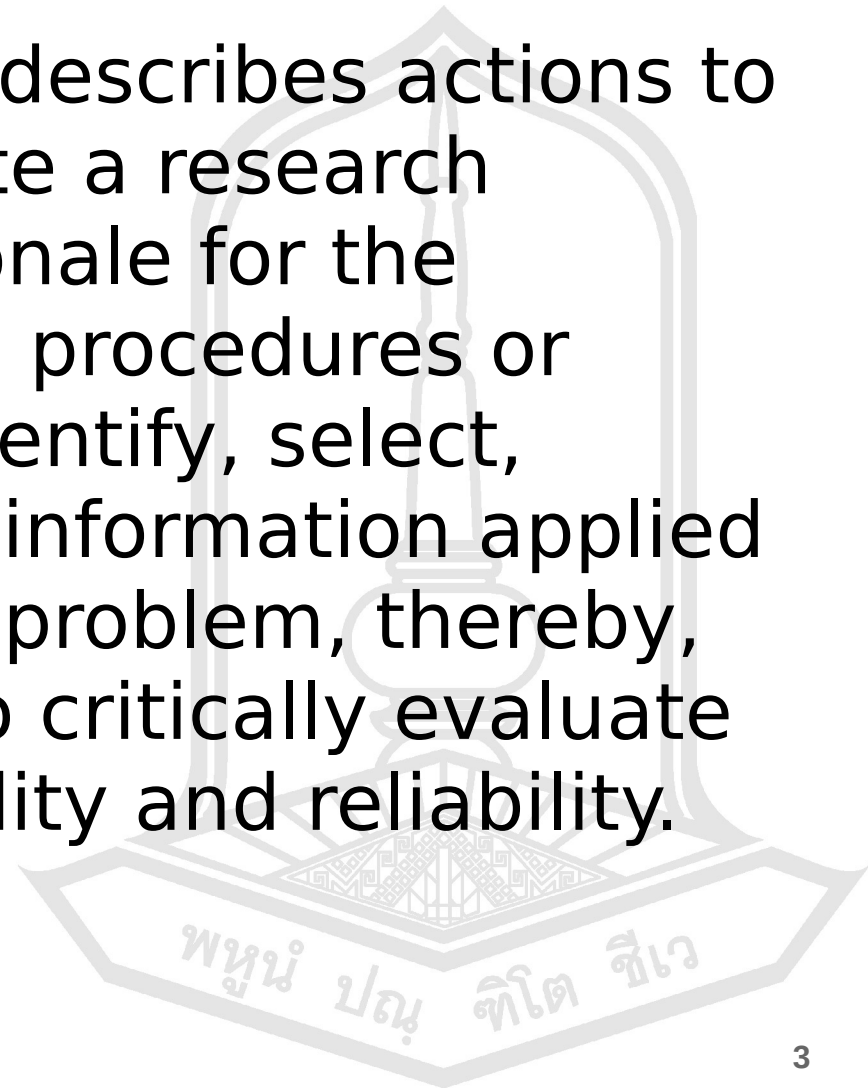
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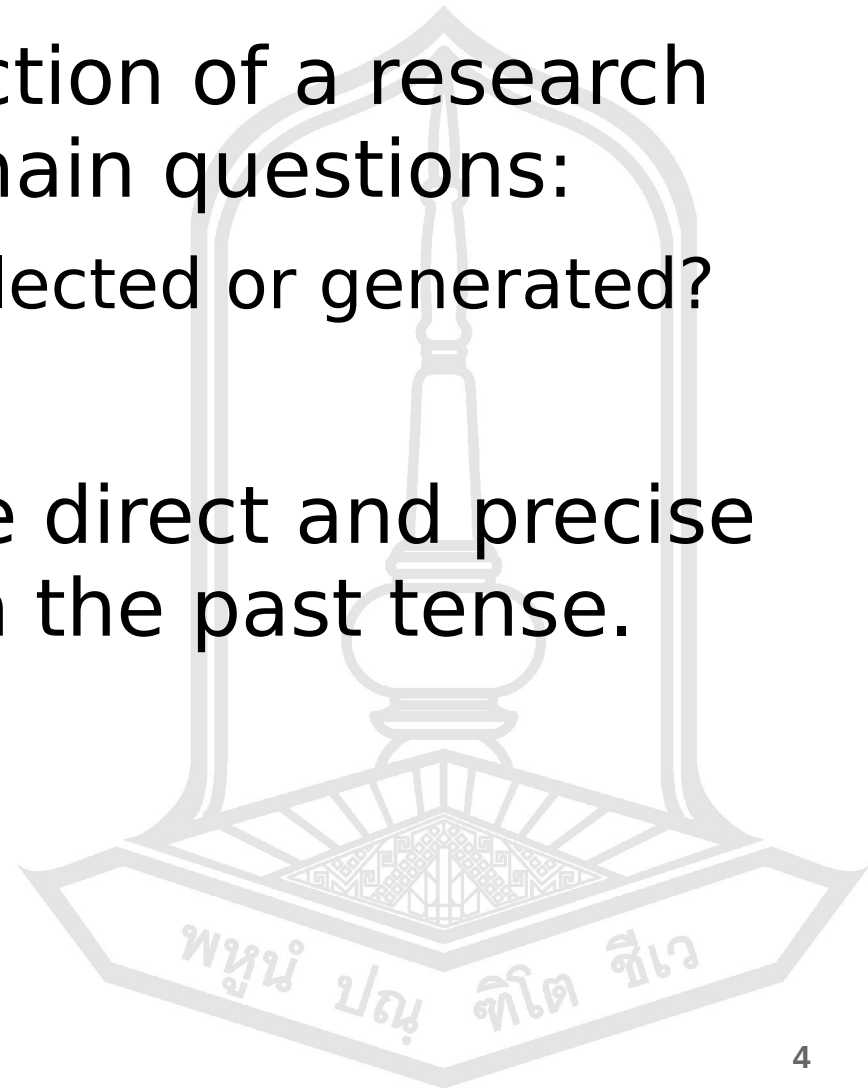
The Methodology - definition

- The methods section describes actions to be taken to investigate a research problem and the rationale for the application of specific procedures or techniques used to identify, select, process, and analyze information applied to understanding the problem, thereby, allowing the reader to critically evaluate a study's overall validity and reliability.



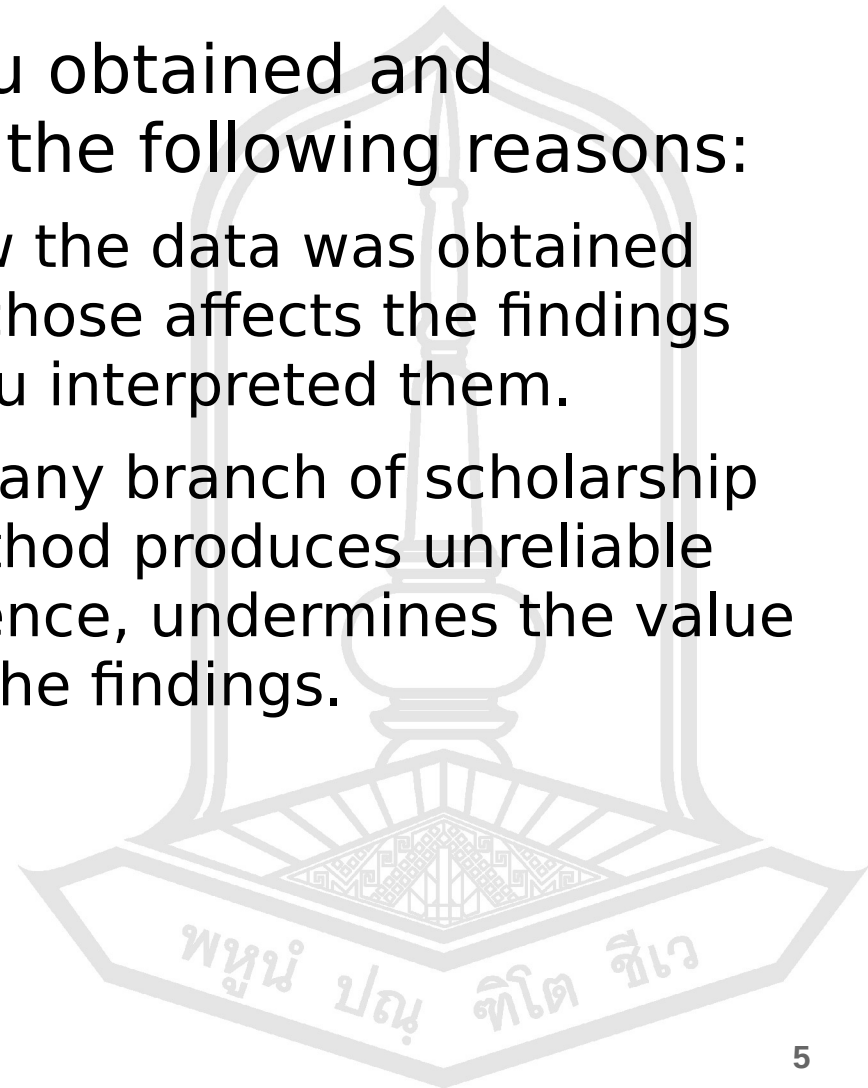
The Methodology - definition

- The methodology section of a research paper answers two main questions:
 - How was the data collected or generated?
 - How was it analyzed?
- The writing should be direct and precise and always written in the past tense.



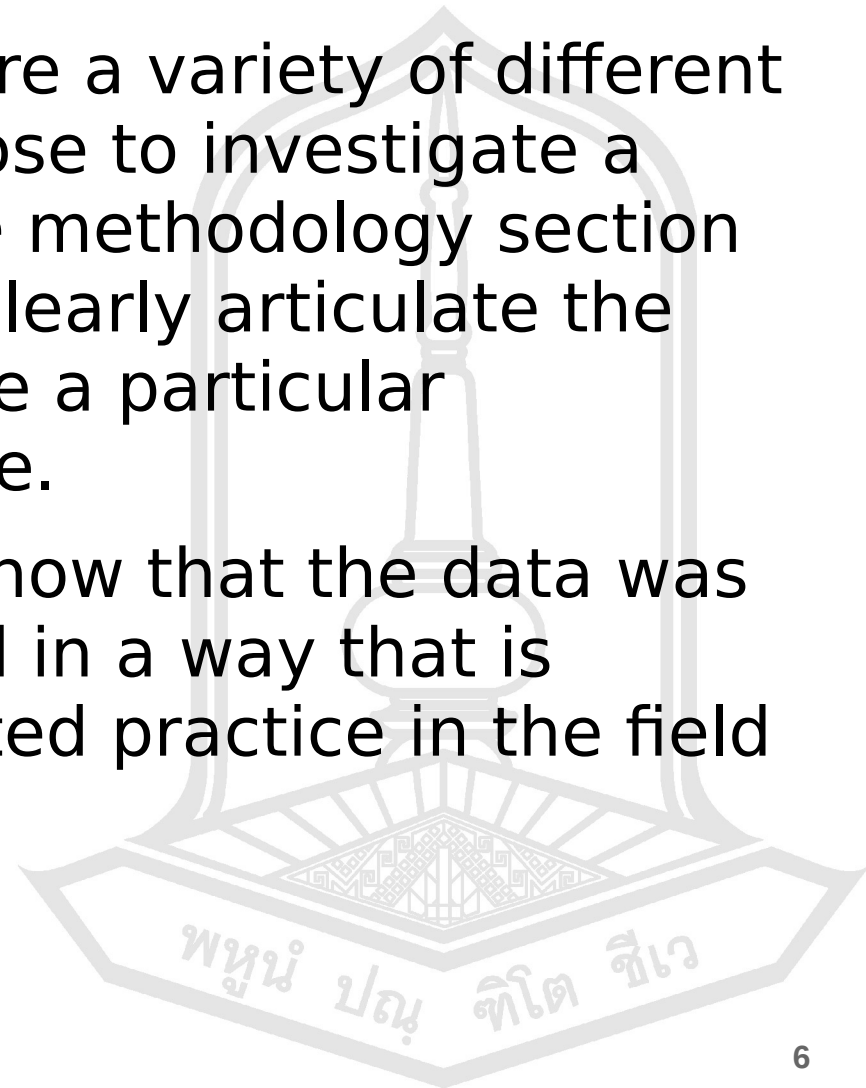
Importance of a good methodology section

- You must explain how you obtained and analyzed your results for the following reasons:
 - Readers need to know how the data was obtained because the method you chose affects the findings and, by extension, how you interpreted them.
 - Methodology is crucial for any branch of scholarship because an unreliable method produces unreliable results and, as a consequence, undermines the value of your interpretations of the findings.



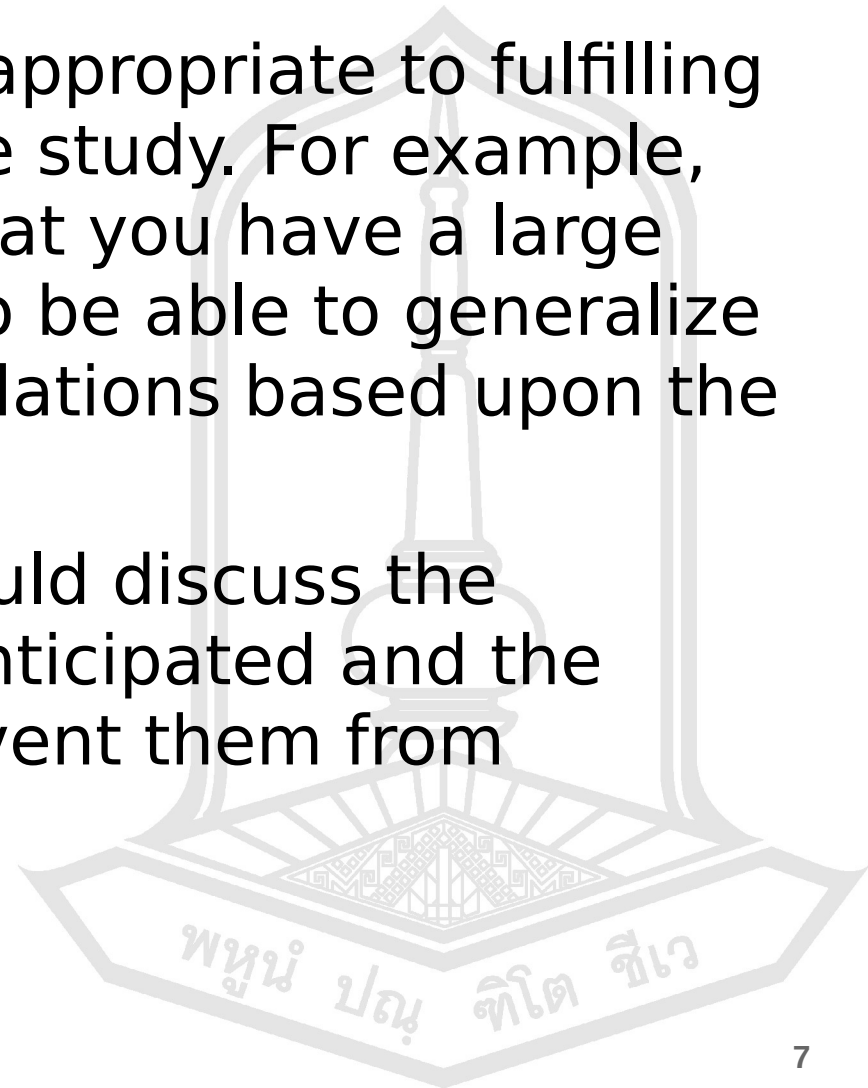
Importance of a good methodology section

- In most cases, there are a variety of different methods you can choose to investigate a research problem. The methodology section of your paper should clearly articulate the reasons why you chose a particular procedure or technique.
- The reader wants to know that the data was collected or generated in a way that is consistent with accepted practice in the field of study.



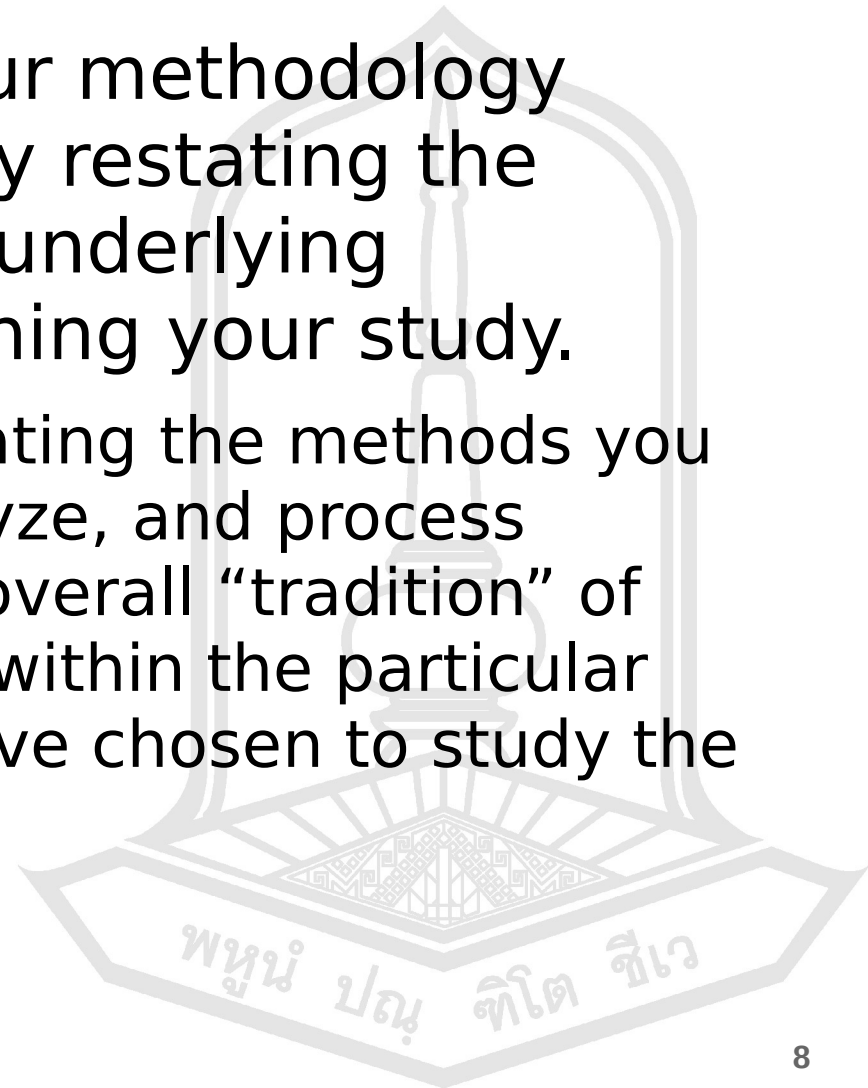
Importance of a good methodology section

- The method must be appropriate to fulfilling the overall aims of the study. For example, you need to ensure that you have a large enough sample size to be able to generalize and make recommendations based upon the findings.
- The methodology should discuss the problems that were anticipated and the steps you took to prevent them from occurring.



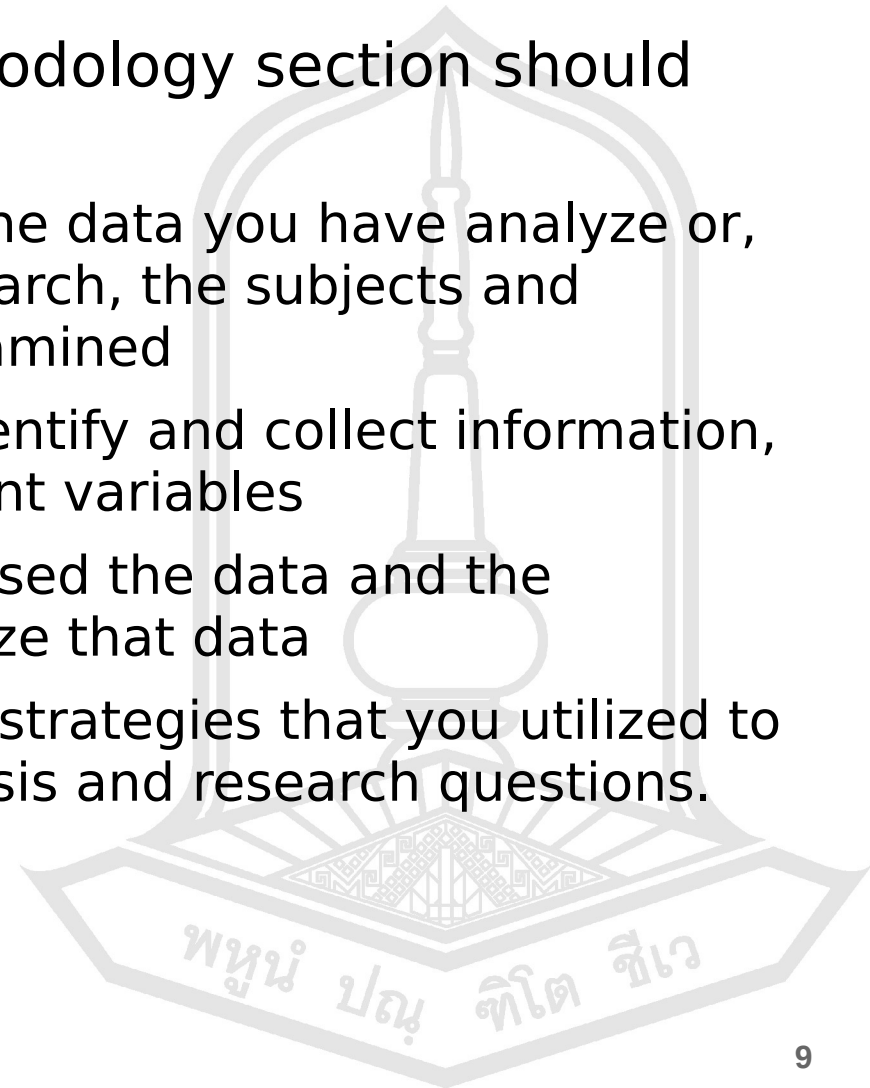
Content

- The introduction to your methodology section should begin by restating the research problem and underlying assumptions underpinning your study.
 - This is followed by situating the methods you will use to gather, analyze, and process information within the overall “tradition” of your field of study and within the particular research design you have chosen to study the problem.



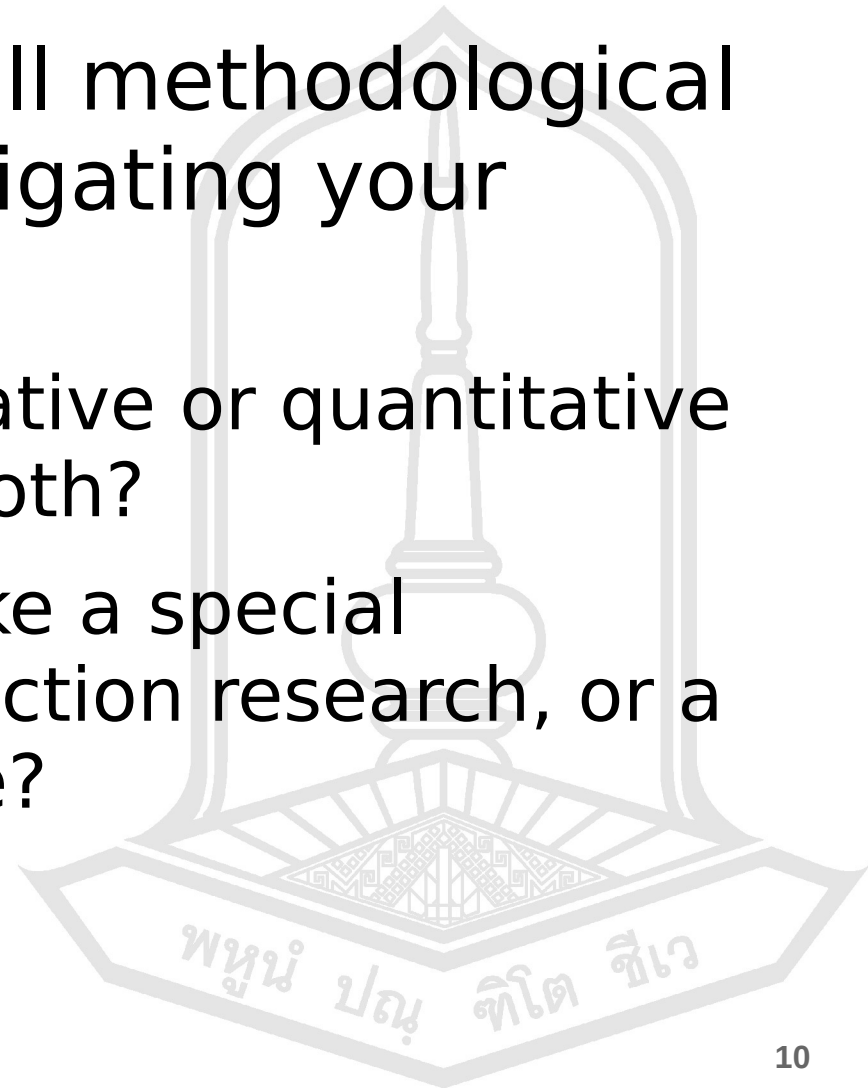
Content

- The remainder of your methodology section should describe the following
 - Decisions made in selecting the data you have analyze or, in the case of qualitative research, the subjects and research setting you have examined
 - Tools and methods used to identify and collect information, and how you identified relevant variables
 - The ways in which you processed the data and the procedures you used to analyze that data
 - The specific research tools or strategies that you utilized to study the underlying hypothesis and research questions.



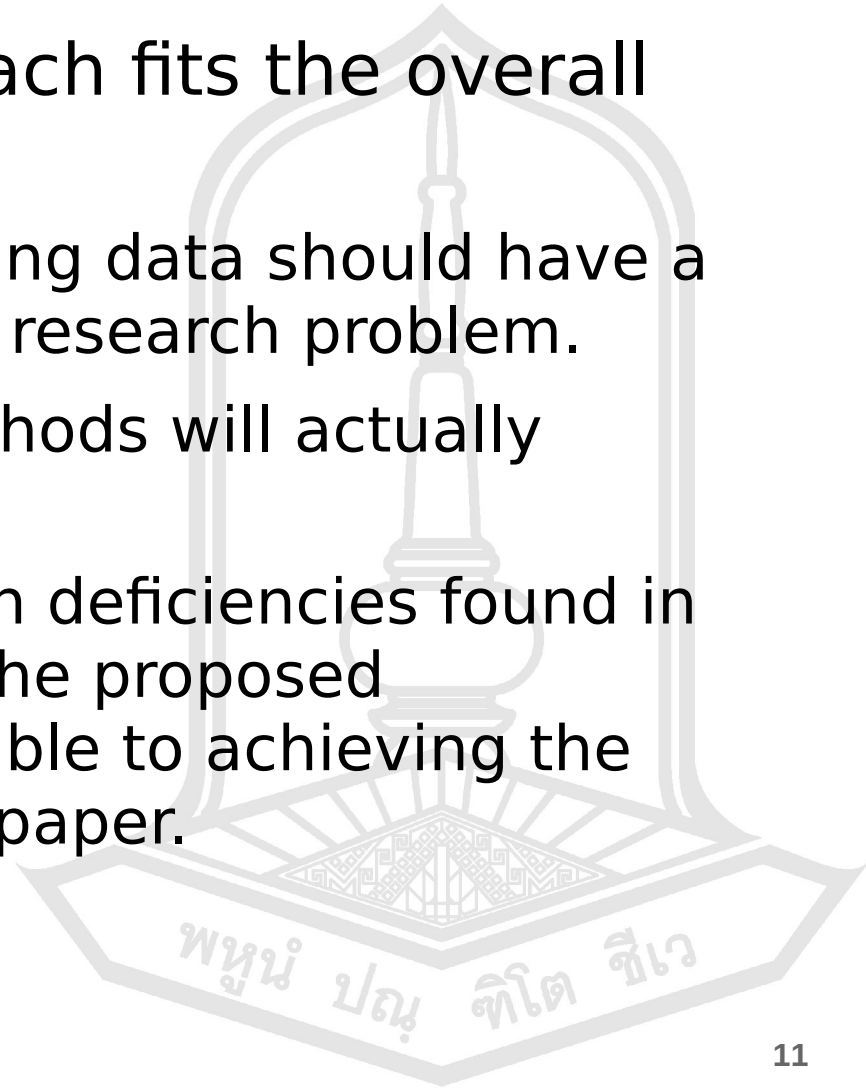
An effectively written methodology section

- Introduce the overall methodological approach for investigating your research problem
 - Is your study qualitative or quantitative or combination of both?
 - Are you going to take a special approach, such as action research, or a more neutral stance?



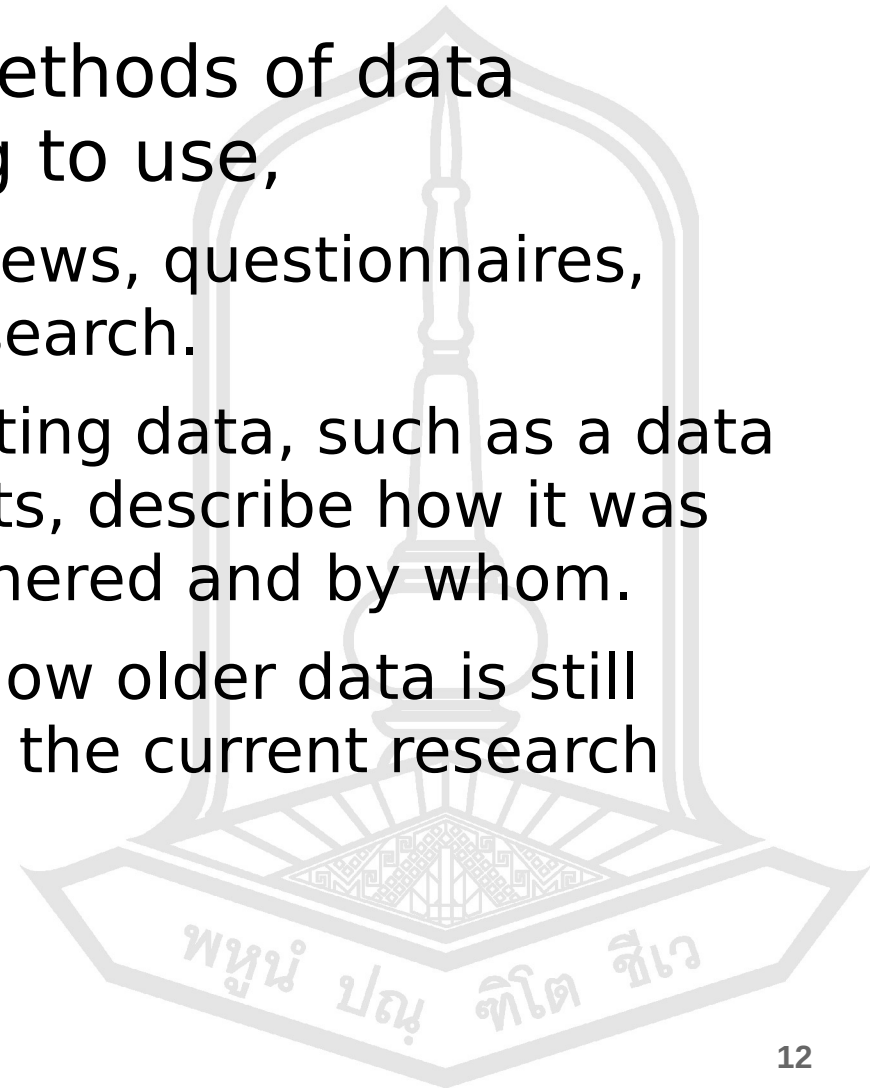
An effectively written methodology section

- Indicate how the approach fits the overall research design
 - Your methods for gathering data should have a clear connection to your research problem.
 - Make sure that your methods will actually address the problem.
 - One of the most common deficiencies found in research papers is that the proposed methodology is not suitable to achieving the stated objective of your paper.



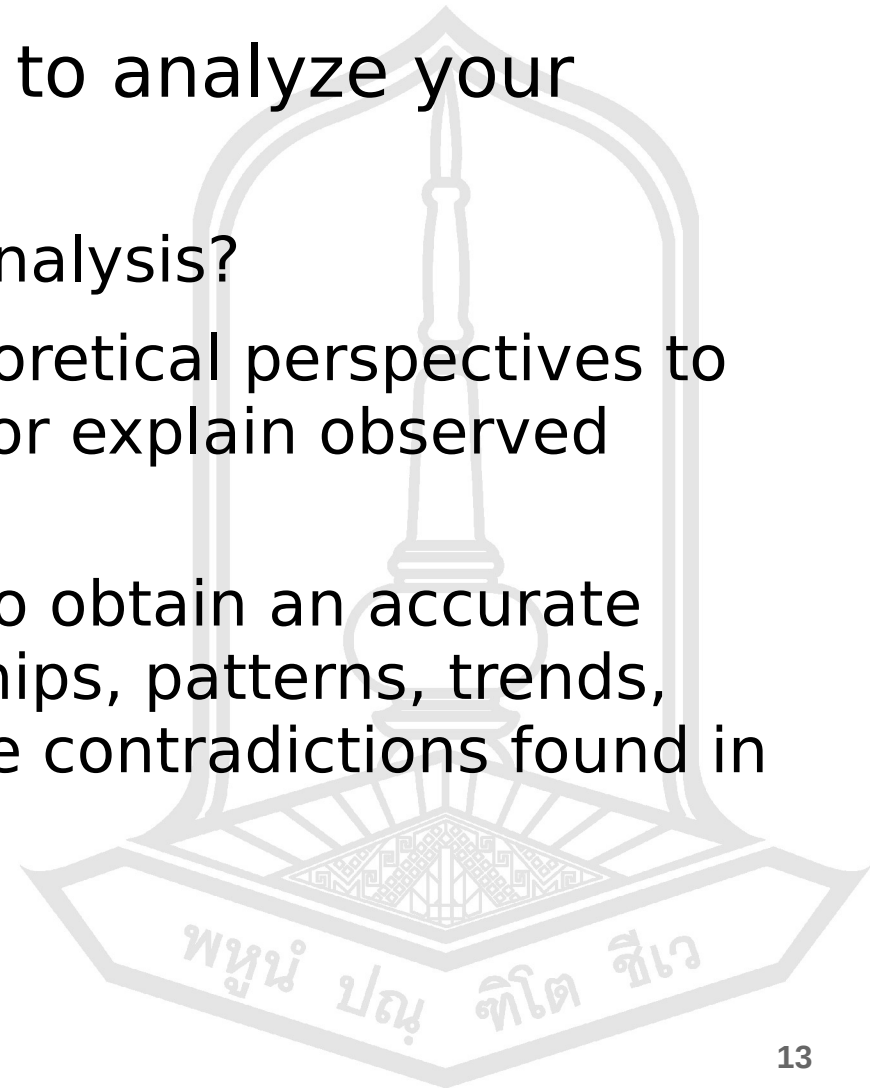
An effectively written methodology section

- Describe the specific methods of data collection you are going to use,
 - Such as, surveys, interviews, questionnaires, observation, archival research.
 - If you are analyzing existing data, such as a data set or archival documents, describe how it was originally created or gathered and by whom.
 - Also be sure to explain how older data is still relevant to investigating the current research problem.



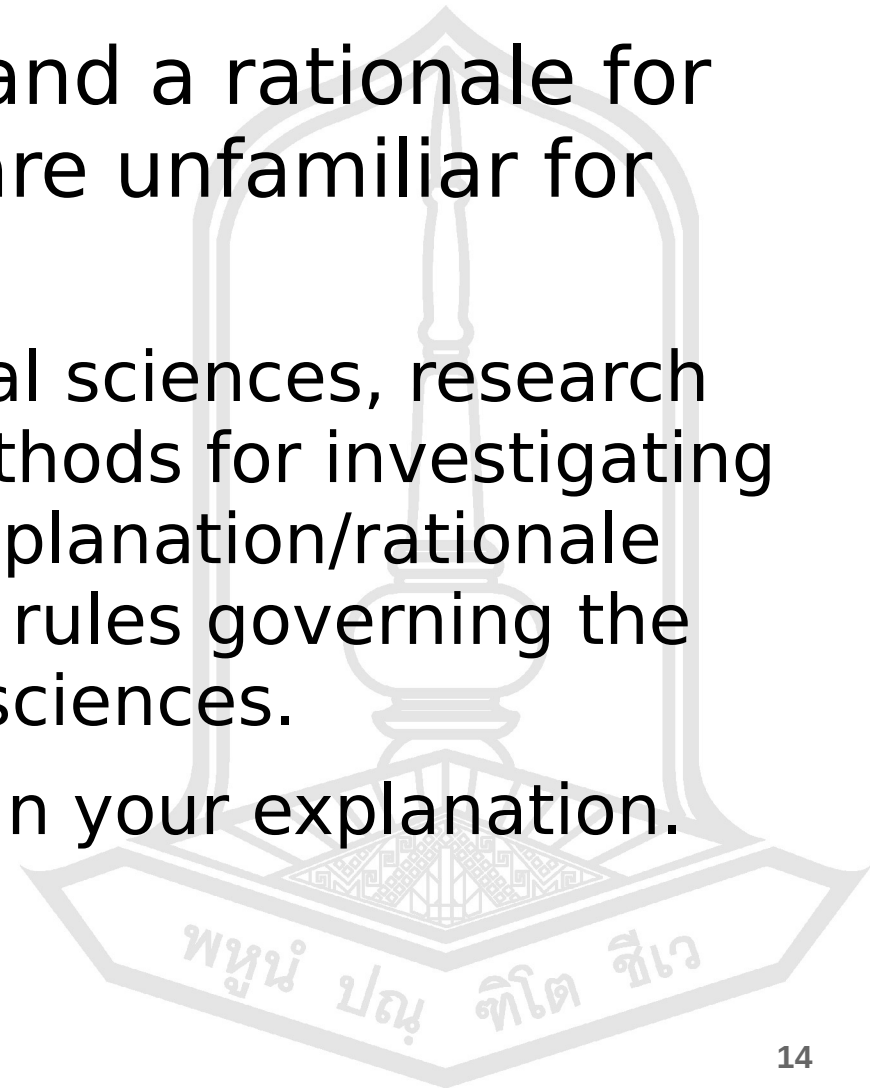
An effectively written methodology section

- Explain how you intend to analyze your results.
 - Will you use statistical analysis?
 - Will you use specific theoretical perspectives to help you analyze a text or explain observed behaviors?
 - Describe how you plan to obtain an accurate assessment of relationships, patterns, trends, distribution, and possible contradictions found in the data.



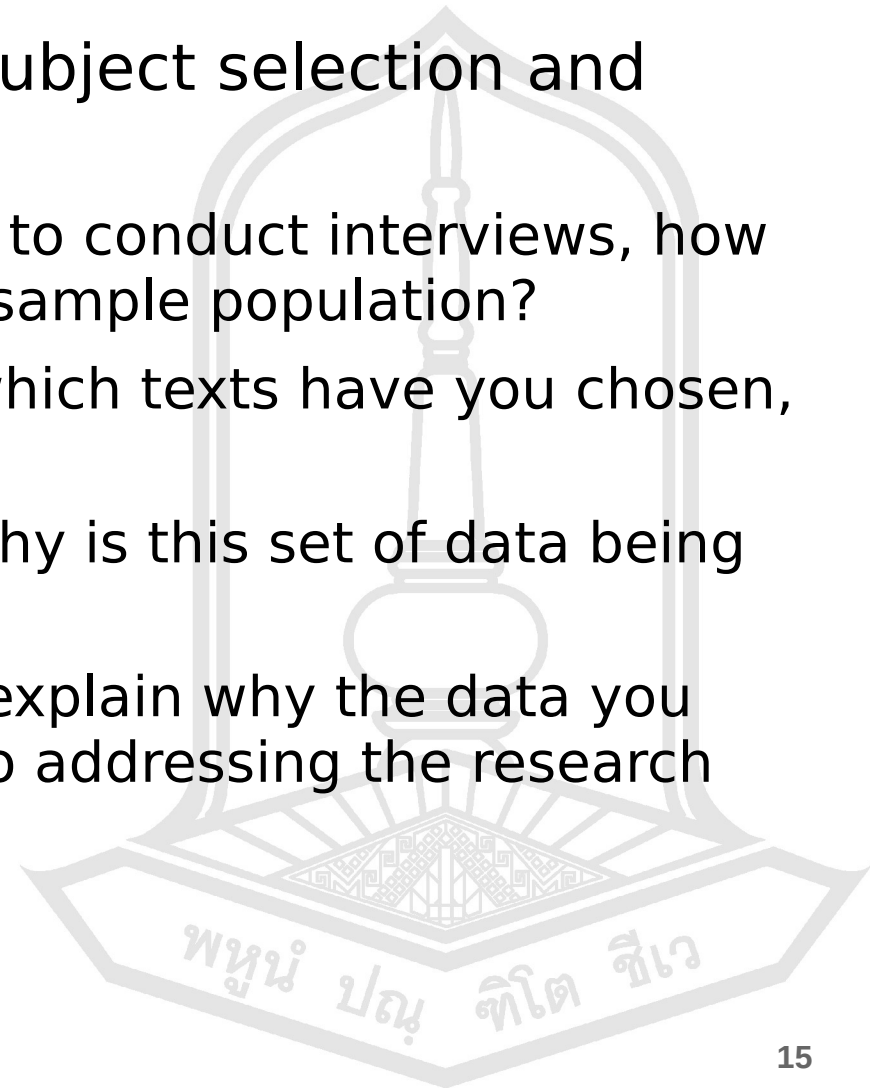
An effectively written methodology section

- Provide background and a rationale for methodologies that are unfamiliar for your readers.
 - Very often in the social sciences, research problems and the methods for investigating them require more explanation/rationale than widely accepted rules governing the natural and physical sciences.
 - Be clear and concise in your explanation.



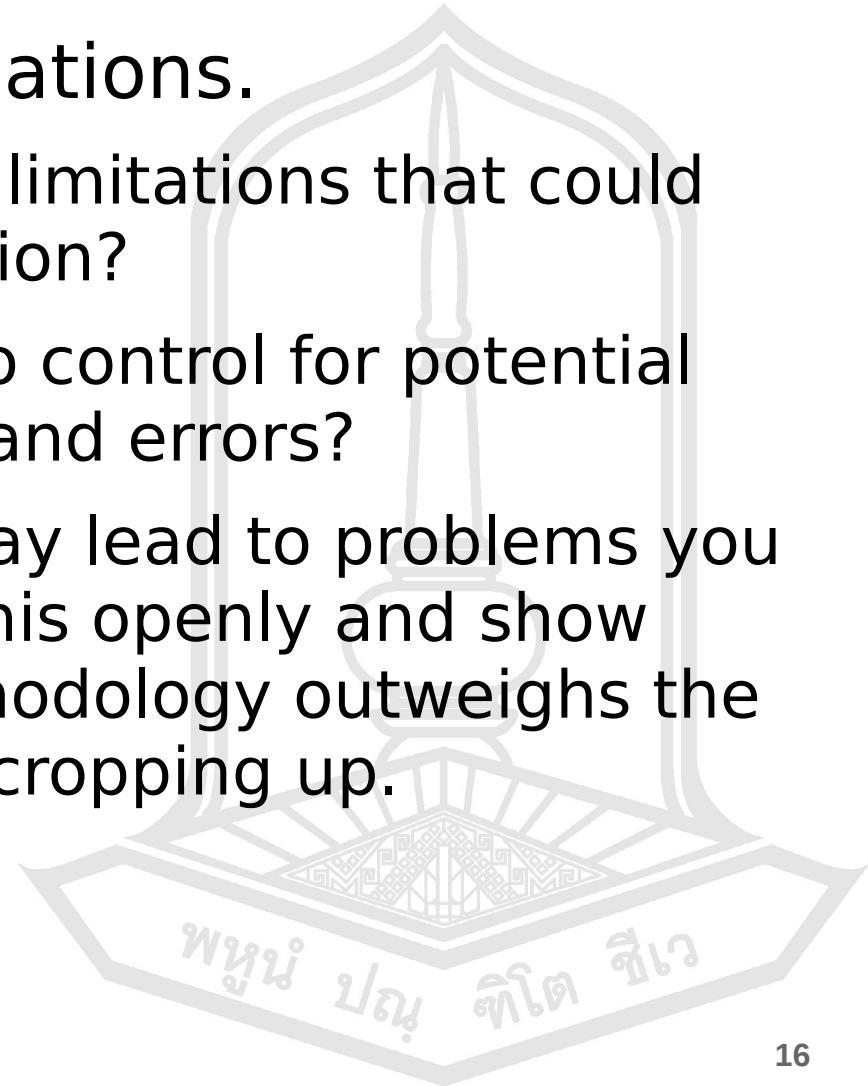
An effectively written methodology section

- Provide a justification for subject selection and sampling procedure.
 - For instance, if you propose to conduct interviews, how do you intend to select the sample population?
 - If you are analyzing texts, which texts have you chosen, and why?
 - If you are using statistics, why is this set of data being used?
 - If other data sources exist, explain why the data you chose is most appropriate to addressing the research problem.



An effectively written methodology section

- Describe potential limitations.
 - Are there any practical limitations that could affect your data collection?
 - How will you attempt to control for potential confounding variables and errors?
 - If your methodology may lead to problems you can anticipate, state this openly and show why pursuing this methodology outweighs the risk of these problems cropping up.



Reference

- <http://libguides.usc.edu/writingguide/methodology>

