

# Empirical vs. Library Studies

## Planning Research Papers 2

Research can be divided into two main types: library research and empirical research. Each has several subtypes, but in general, library research relies on finding documentation in a library or other archive (including the Internet), then summarizing, analyzing, synthesizing, and evaluating it. Empirical research relies primarily on collecting data in some form or another from subjects before summarizing, analyzing, synthesizing, and evaluating it. Because the type of information that forms the basis for the research differs, the form of the reports differs somewhat also. In broad terms, here is how the formats of the two compare:

### **Library**

- Introduction
- Extended review of literature that constitutes, essentially, the results
- Discussion/Conclusion(s)

### **Empirical**

- Introduction
- Review of literature
- Research design/Methodology/Research procedure
- Results
- Discussion of the results
- Conclusion(s) and recommendations

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Each of the separate sections above can be divided further into subsections, as outlined below. You won't necessarily use all of the subsections, however; which you use depends on your unique problem and purposes.

#### **Introduction:**

- Statement of the problem
- Purpose of the study
- Definition of terms
- Organization of the study
- Limitations of the study
- Collection of the data
- Analysis of the data

Review of literature:

- Introduction to the kinds of studies you will review; what makes these relevant?
- General related literature
- Literature more closely related to your narrower topic

Research design:

- Statement of the problem
- Questions to be answered and/or your formulation of the hypotheses
- General design method (e.g., survey, interviews, experimentation, etc.)
- Justification of the design method
- Population to be studied (demographics and justification)
- Method for collecting the data
- Statistical procedures to be used, if any
- Limitations of the design

Results:

- Review of research questions
- Findings and results (separately stated for each research question)
- Summary of results

Discussion of the results:

- General statement of what the data seem to indicate or whether they seem to support the hypotheses or not
- Discussion of the significance of the data as it relates to each question or hypothesis separately

Summary-Conclusions-Recommendations:

- Summary of the study and restatement of the problem
- Summary of the findings
- Summary of the relationship of the findings to the research questions/hypotheses
- Statement of the significance of the findings for the field
- Recommendations for further research

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For more in-depth information on research planning, check out these sources:

Ary, D., Jacobs, L.C., & Asghar, R. (1972). Introduction to research in education. New York: Holt Reinhart and Winston.

Isaac, S. & Michael, W.B. (1974). Handbook in research and evaluation. San Diego: Robert R. Knapp Publishers.