



# **Research Methodology**

# Research design

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- ☐ **How is the problem studied?  
Describe how you did it. (Materials and Methods)**
- ☐ **How are your findings gained?**
- ☐ **Are the results reliable?**

# Research design

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- ❑ ➤ **Materials**
- ❑ ➤ **Experimental design**
- ❑ ➤ **Data score & analysis**
- ❑ 使用描述性的语言顺序释材料和方法
- ❑ 用段落第一句话进行总体概括，然后用细节进行补充说明

# Research design

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**Empirical research in social science and education can be qualitative or quantitative.**

- ❑ **Qualitative research** includes (in-depth) interviews, participant observations, objects analysis(实物分析), mainly involving **why and how**
- ❑ **Quantitative research** is used to measure how many people feel, think or act in a particular way. Quantitative research mainly involve the use of **structured questionnaires or surveys.**

# Components of research design

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- A. Research questions
- B. Research subjects
- C. Research instruments
- D. Research procedure
- E. Data collection

## A. Describing research questions

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*In the present sense; Clear and precise; Specific.*

Three general categories of research questions

- a. Descriptive questions
- b. Relational questions
- c. Differential questions

**Research questions may or may not be raised in a question form.**

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- **Descriptive questions** ask what some phenomena or events are like.

*What is the nature and extent of gesture use in communicative ESL lessons?*

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- **Relational questions** examine the degree to which two or more constructs are related to each other.

*Is length of residence a sufficient condition for the development of pragmatic competence?*



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- **Differential questions** most often ask if difference exists between groups of people or within individual participants.

*What are the similarities and differences between native and non-native speakers in the selection of refusal strategies?*

## B. Describing research subjects

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The subject section describes **who** will be the participants in the investigation, **how many**, their **characteristics and how they were selected.**

# Note:

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- ❑ Specific numbers, impersonal structures, and long phrases with modifiers and long sentences with subordinate clauses or phrases for elaboration.
- ❑ Better described in the **past** tense.

# Example:

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...

*A total of 45 students participated<sup>ed</sup> in this study, including 15 native English speakers (NESs), 15 Chinese ESL speakers and 15 Chinese EFL speakers. The NESs were volunteers from two freshmen composition classes taught by the researcher in a mid-size state university in southwestern U.S....*

modifier

# Note:

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- A table of detailed subjects' information may be offered.

Speaker group	American, n = 15	Chinese ESL, n = 15	Chinese EFL, n = 15
Number of females	7	11	10
Number of males	8	4	5
Age in years, mean (SD)	18.27 (.70)	19.93 (1.53)	20.07 (1.03)

# C. Describing research instruments

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## 11 points

instrument name, acronym, author, key reference, a brief description of the constructing the instrument assesses, number of items, type of items, factors or subscales and their definitions, indication of the direction of scoring and what a high score means, reliability estimates, and validity estimates

# Note:

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- ❑ For the self-designed instrument, the development of the instrument and the results of a pilot study needs to be added.
- ❑ The operational definitions of dependent and independent variables must be listed.

# Example:

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*To develop representative materials in Chinese, we conducted a **pilot experiment**. The goal was to obtain instances of all of the speech acts frequently performed by Chinese speakers and to do so with no speech act verbs.*

*We **adapted the method** from Experiment 1 of Holtgraves (2005) and **developed a set of scenarios** (50) in Chinese describing situations in which one person was in need of performing a particular speech act (e.g., introduce)....*



# Note:

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- gives the complete name of the instrument with the abbreviated ones in the parentheses ;

*Discourse Completion Task (DCT)*

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**□ Passive sentences and other impersonal structures are used.**

*....A prototype **was chosen** for each of the speech acts **examined** in the production task. The participants in the comprehension task **were told** to read each scenario and the speech act **obtained** from the production task and then to provide a two-character word ...*

# Note:

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- ❑ The **past tense** is used to describe how the instrument is designed or adapted from a certain previous study, while **the present tense** can be used to evaluate the selected instrument.
- ❑ Give the **original language** and the **translation**, if the research concerns another language, which is not the language in writing the article.

....*Xiao Zhang, nihao?*” (*How are you, Xiao Zhang?*)

# D. Describing the research procedure

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the **exact steps** for all phases of the study, from the preliminary pilot testing to contacting participants and administering the instruments or the interventions.

## Note:

- ☐ Some dynamic verbs are used;
- ☐ Passive structure are used;
- ☐ Past tense except for the researcher's evaluation of the research step

# Example:

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- The responses **were reviewed** to determine which language forms (semantic formulas) were present or absent .... The collected data **were analyzed** for components of each speech act present in the responses. In order to have a sound analysis of the data, the produced refusals **were parsed** into strategies. This **keeps** the researchers analytically honest, and also all the data **are accounted** for.

# E. Describing data collection

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what kind of statistical package;  
what statistical analysis was operated