# THE 8 STEPS IN RESEARCH PROCESS (KHUMAR, 1999)

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## In quantitative research,

- Data are large
- Mainly in form of numbers (quantity)
- It comes with assumption and hypothesis
- Works with statistical analysis
- Usually deals with VALIDITY testing
- Well recognized as HARD

# Quantitative Methods and Designs

- Exp. Research
- Correlational research
- □ Survey)\*

## In qualitative research,

- Deals with natural phenomenon
- Small data (single)
- Address to understand more about the natural occurring data, e.g. person, group of persons in <u>context</u>!
- Examples of qualitative research: case study, descriptive study, classroom action research, pragmatics, linguistic analysis

## Research process (continued)

## # selecting the topic (1)

- Remember, in your cases here, your topic MUST be related to English Language Teaching
  - English language
  - English teaching

### Project:

- With your partner, think and discuss, and write the research topics you are interested in;
- Write down possibilities and provide some evidences, e.g. argument and opinion why is it worth enough to investigate (doing this, you may consult to references)

- # Narrowing down (2)/ specifying your research topic
- When specific, it tells about "what will be analyzed, x
  & y variables"
- See your topic again, and
  - Is it manageable?
  - Is it too large?
  - is it easy to find the data
  - Do you know how to access the data, research field?
  - What about your affordance? Your resources, e.g. capability, and so forth.

#### # Formulating research problem (3)

- mostly constructed in a form of QUESTION
- written in correct grammar
- # Research question will *guide* and *determine* the design and instrumentation of the research
  - Research question addressing natural phenomenon will direct to qualitative research;
  - Research question indicates manipulation, large data, numeric data will lead us to quantitative research

#### # Constructing research design (4)

- Understand your <u>research question</u>,
- Identify the dependent and independent <u>variables</u>
  (Qn), proposition (Ql)
- Justify the <u>technique of data collection</u>
- Determine the technique of <u>data analysis</u>

#### # Constructing research instrument (5)

- Refer to your research question
- Determine its instrument to gather required data,
  e.g. test, interview, questionnaire, observation, close reading, etc.
- Construct the instrumentation, e.g. written test, multiple choice test, semi-structured interview, participant observation, etc.

#### # collecting data (6)

- You go to the field of the research, execute of the action, treatment (manipulation), observation
- Collect and manage the data

#### # analyzing the data (7)

- You start analyzing the data, e.g. describing,
  statistical analysis, interpreting the statistical outputs
  (Qn)
- You transcribe, code, reduce, describe, interpret the data (QI)
- Drawing conclusion

#### # Reporting (8)

- □ You write a report, e.g. thesis, dissertation
- You disseminate your findings in seminar or conference
- You publish the report, e.g. article in journal