# **Case study** Instructor: Nguyen Ngoc Vu, Ph.D.

# **Case Study**

• "An exploration of a 'bounded system' or a case (or multiple cases) over time through detailed, in-depth data collection involving multiple sources of information rich in context."

Creswell, J. (1998). *Qualitative inquiry and research design: Choosing among five traditions.* Thousand Oaks, CA: Sage, 61.

# **Case Study Examples**

- Sigmund Freud's study of patients, which formed the basis for his psychoanalytic theory
- Jean Piaget's study of the development of children, which led to numerous theories of child development

# **Key characteristics**

- 1. Phenomenon is examined in a natural setting
- 2. Data are collected by multiple means
- 3. One or few entities (person, group or organization) are examined
- 4. The complexity of the unit is studied intensively
- 5. The investigator should have a receptive attitude towards exploration
- 6. No experimental controls or manipulation are involved
- 7. The investigator may not specify the set of dependent and independent variables in advance
- 8. The results derived depend heavily on the integrative powers of the investigator
- 9. Changes in site selection and data collection methods could take place as the investigator develops new hypotheses
- 10. Useful to study "how" and "why" questions
- **11**. The focus is on contemporary events

# Sources of evidence

- Documentation
- Archivial records
- Interviews
- Direct observations
- Participant-observation
- Physical artefacts (technological devices, tools or instruments, a work of art)

# **3** Principles of data collection

Principle 1:Use multiple sources of evidence

- Single source: problems of accuracy and trustworthiness
- Triangulation: rationale for using multiple sources of evidence
- More expensive/time consuming/need different skills

# **3** Principles of data collection

Principle 2: Create a case study database

- Need to separate between collected evidence and final report
- Increase reliability
- Contents: notes, documents, quantitative data, narratives
- Other people should be able to access data

# **3** Principles of data collection

Principle 3: Maintain a chain of evidence

- To allow an external observer to follow the evidence
- Trace steps
  - From conclusions to research questions
  - From research questions to conclusions
- Final report ↔ database ↔ evidence and circumstances ↔ procedures and questions in protocol ↔ initial research questions

# Criticisms of the Method

- Insufficient rigour
  - Compared to experimental research
    - But actually experiments are not automatically precise or unbiased
- Inadequate basis for generalisation
  - Which is why multiple cases are conducted
  - The results of a case study investigation can be generalised to theory and can inform theory development

# **Action Research**

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## What is Action Research?

Action Research is a process through which teachers collaborate in evaluating their practice, try out new strategies, and record their work in a form that is understandable by other teachers.

John Elliott. (1991). Action Research for Educational Change. Philadelphia: Open University Press/Milton Keynes.

# Similarities and Differences Between Action Research & Formal Quantitative and Qualitative Research

#### Action Research

#### Formal Research

Systematic inquiry.

Goal is to solve problems of local concern.

Little formal training required to conduct such studies.

Intent is to identify and correct problems.

Carried out by teacher or other local education professional.

Uses primarily teacher-developed instruments.

Less rigorous.

Usually value-based.

Purposive samples selected.

Selective opinions of researcher often considered as data.

Generalizability is very limited.

Systematic inquiry.

Goal is to develop and test theories and to produce knowledge generalizable to wide population.

Considerable training required to conduct such studies.

Intent is to investigate larger issues, of local concern.

Carried out by researcher who is not usually involved in local situation.

Uses primarily professionally-developed instruments.

More rigorous.

Frequently value-neutral.

Random samples (if possible) preferred.

Selective opinions of researcher never considered as data.

Generalizability often appropriate.

# Nature of Action Research

- Conducted by a teacher, administrator, or other education professional to solve a problem at the local level.
- A given research question may often be investigated by any one of several methods.
- Some methods are more appropriate to a particular research question and/or setting than other methods.

# Key characteristics

- A practical focus
- The educator-researcher's own practices
- Collaboration
- Dynamic process
- A plan of action
- Sharing research

### **Action Research Cycle:**

### Observe, Reflect, Plan and Act

- <u>Observation phase</u> the issue or problem is monitored and described. Useful data is recorded and kept.
- <u>Reflection phase</u> observations are interpreted and shared so that the issue or problem can be better understood.
- <u>Planning phase</u> actions are proposed to address the issue or problem.
- <u>Action phase</u> the plan is implemented and the cycle starts again as outcomes are observed, recorded, and shared.



Simple Action Research Model

# **Advantages of Action Research**

- It can be performed by anyone, in any type of school or institution
- It can help to improve educational practice
- It can help education and other professionals to improve their teaching
- It can help them learn to identify problems systematically
- It can build up a small community of research-oriented individuals at the local level