

# Case Study Research

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Multiple Methods Seminar – PhD Course

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# Presentation outline

- Case studies – definitions, applications, misunderstandings
- Advantages and disadvantages of case study research



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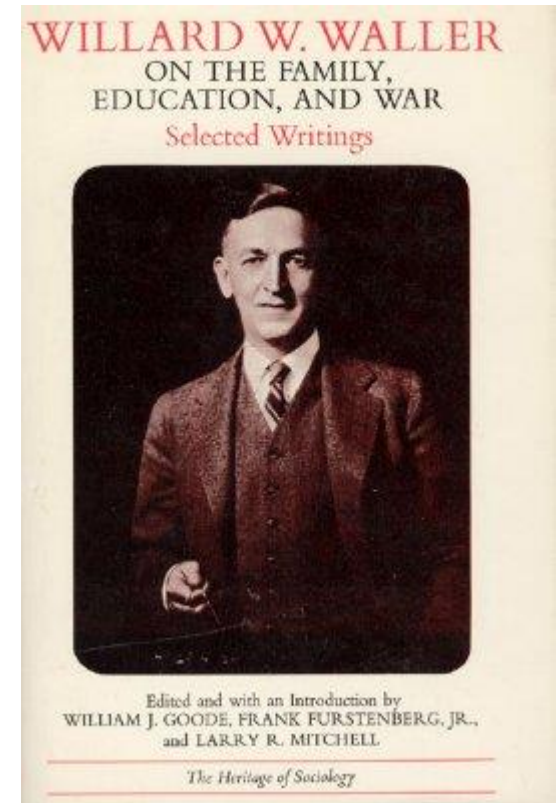


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# Case Study Definition

- No universal definition
- Willard Waller - sociologist (1934): „Science is akin to the artistic process, it is process of selecting out those elements of experience which fit together and recombining them in the mind“
- Qualitative research aims to produce generalisations but tells us little about causal relations, **while qualitative work can help to identify relations of causality, but is unable to generalise from these** (Hankinson 1995, in Gomm et al., 2000)



# Case Study Definition (cont.)

- Collins English Dictionary: „the act or an instance of analysing one or more particular cases or case histories with a view to making generalizations“
- Sociology dictionary:



## **Case Study**

**A case study is an exhaustive study of a single case of a set of phenomena. ... this method is considered useful in getting preliminary knowledge in order to build a hypothesis that can then be tested through a study of larger number of cases.**

**In sociology, this method is sometimes used as a preliminary step to a broader research. Through case study, one can arrive at in-depth qualitative data.**



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# Case Study Definition (cont.)

- Method used for uncovering „the causal processes linking inputs and outputs within a system“ (Gomm et al., 2000)
- Method that helps us „see causal relationships occurring within certain circumstances“ because „ .. in field work general relations are often discovered *in vivo* , that is the researcher literally sees them occur“ (Glaser, Strauss, 1967)
- „soft“ method for qualitative research, but „hard“ in terms of covering the logic of research design, data collection techniques, specific approach to analysis
- Yin (2009:18) - a case study is an empirical inquiry that:
  - investigates a **contemporary phenomenon** in depth and within a **real-life context**, especially when the **boundaries** between phenomenon and context are not clearly evident
  - copes with a technically distinctive situation in which there will be many more variables of interest and as one result
  - relies on multiple sources of evidence, with data needing to converge as another result
  - benefits from the prior development of theoretical propositions to guide data collection and analysis



# Case Study (CS) Application

- Preferred method when HOW or WHY questions are being posed
- OR if the the investigator has little control over events
- OR if the focus is on contemporary phenomenon within a real-life context
- Used in psychology, sociology, political science, anthropology, ethnography, business and marketing, public health, environmental sciences, etc.
- Not exclusively a qualitative research method (use of qualitative and quantitative)



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# CS Application (cont.)

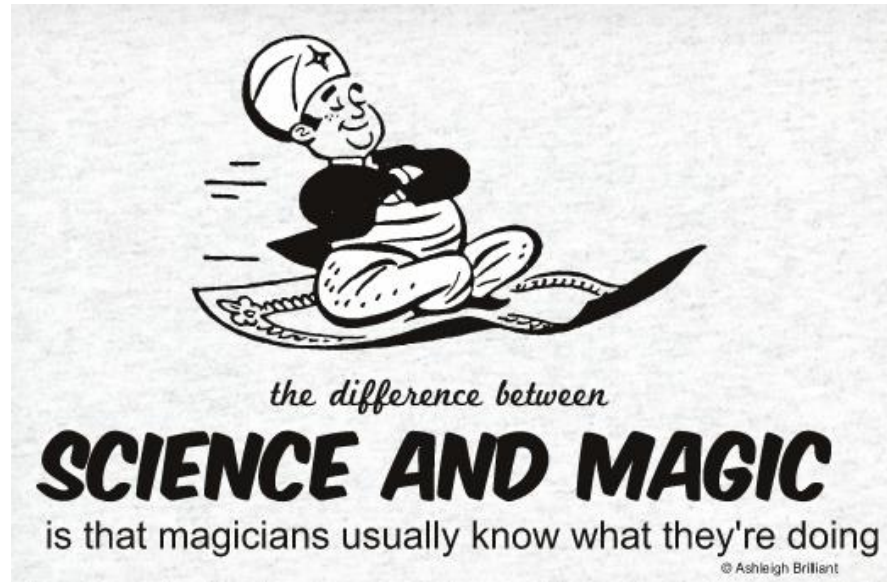
- Can be on any topic
- Used to: „**explain** causal links in real-life (too complex for survey or experimental strategies) .... to **describe** an intervention in the context .... **illustrate** certain topics.... and to **enlighten** the situation which has no clear single set of outcomes“ (Yin, 2009:19-20)
- CAUSAL CSs
- DESCRIPTIVE CSs
- EXPLORATORY CSs
- SINGLE OR MULTIPLE CSs





# Case Study Application (cont.)

- Problematic validity and replication?
- „One can validly explain a particular case only on the basis of general hypotheses. All the rest is uncontrollable, and so of no use” (Dogan, Pelassy, 1990: 121).
- „ (case) studies have such a total absence of control as to be of almost **no scientific value** ... Any appearance of absolute knowledge, or intrinsic knowledge about singular isolated objects, is found to be **illusory upon analysis** ... It seems well-nigh **unethical** at the present time to allow, as theses or dissertations in education, case studies of this nature (i.e., involving a single group observed at one time only). (Campbell, Stanley, 1966: 6-7)





# Flyvbjerg (2006) – 5 misunderstandings about Case Studies

*Misunderstanding 1:* „General, theoretical (context-independent) knowledge is more valuable than concrete, practical (context-dependent) knowledge.“

*Misunderstanding 2:* „One cannot generalize on the basis of an individual case; therefore, the CS cannot contribute to scientific development.“

*Misunderstanding 3:* „The CS is most useful for generating hypotheses; that is, in the first stage of a total research process, whereas other methods are more suitable for hypotheses testing and theory building.“

*Misunderstanding 4:* „The CS contains a bias toward verification, that is, a tendency to confirm the researcher’s preconceived notions.“

*Misunderstanding 5:* „It is often difficult to summarize and develop general propositions and theories on the basis of specific CSs.“

# Flyvbjerg (2006) – 5 misunderstandings about CSs

Learning process: Context dependent knowledge allows people to develop (expert) knowledge and skills (student ↔ teacher)

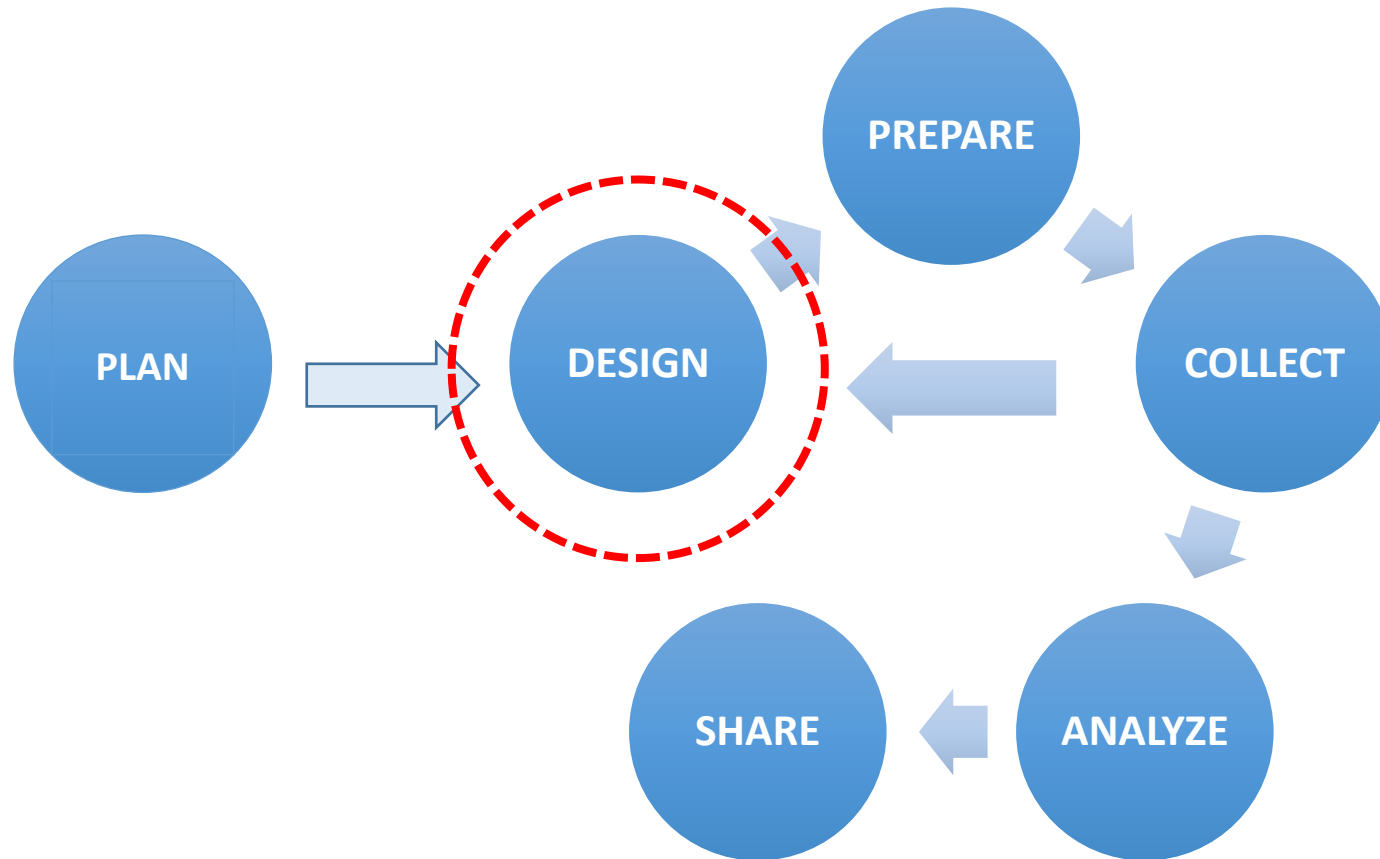
Depends on the case, however many breakthrough discoveries in the past have arisen from intense in-depth observation, rather than statistics – the „force of example (what seems to be „white“ turns out to be black in the „end“)

Links to previous misunderstanding – however CS is useful for generating and testing hypotheses BUT IS NOT LIMITED to these alone – relates to CASE SELECTION

In-depth CSs: test views directly in relation to the phenomena as they occur in practice, outcomes determined by multiple evidence and fieldwork, rather falsification than verification

The problem is the summary, not the method – it is recommended not to summarize and generalize case studies, they should be read as narratives in entirety

# Case study - process



# Strategies for the selection of CSs (Flyvberg, 2009)

- **Random selection**: avoiding systematic biases in the sample, the sample's size is decisive for generalization, not suitable if the objective is to achieve the greatest possible amount of information on a given problem or phenomenon
- **Information-oriented selection**:
  - ***Extreme/deviant cases*** – unusual, especially problematic/good;
  - ***Maximum variation cases*** - 3-4 CS process and outcome;
  - ***Critical cases*** - logical deductions: “If this is (not) valid for this case, then it applies to all (no) cases.”
  - ***Paradigmatic cases***: developing schools, metaphors, etc.



# Components of CS research design

**Research question(s)**

**Study proposition (expectation, hypothesis)**

**Unit of analyses**

**The logic for linking data (collected) to propositions**

**The criteria for interpreting the findings**



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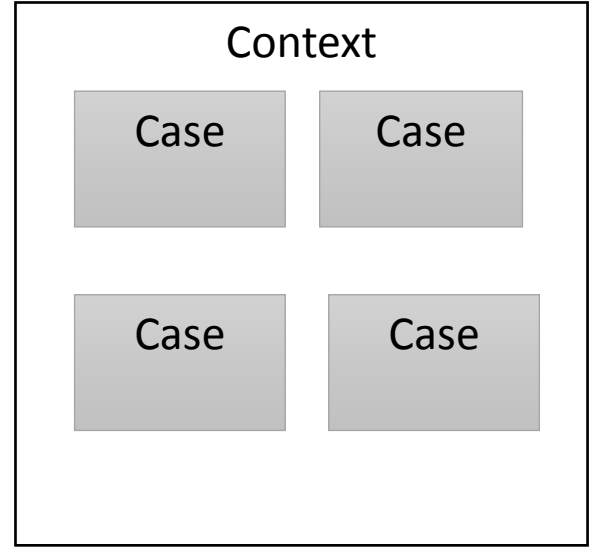
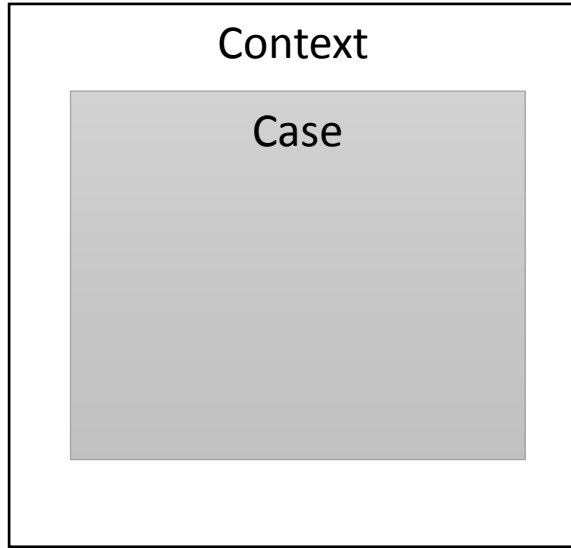
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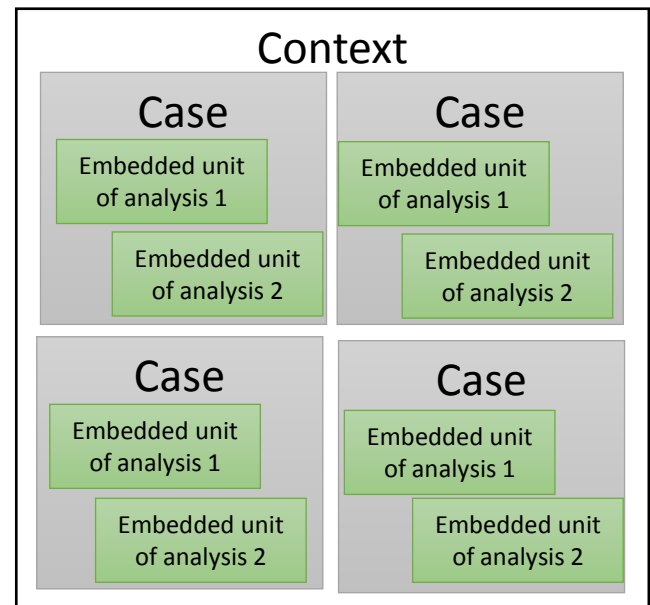
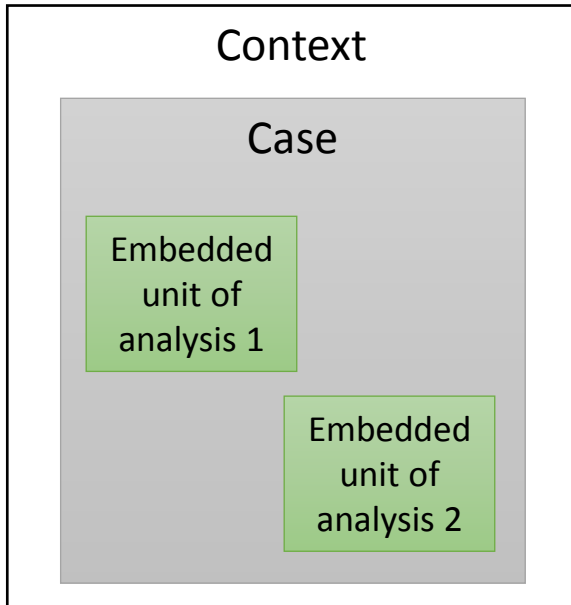
Single case design

Multiple case designs

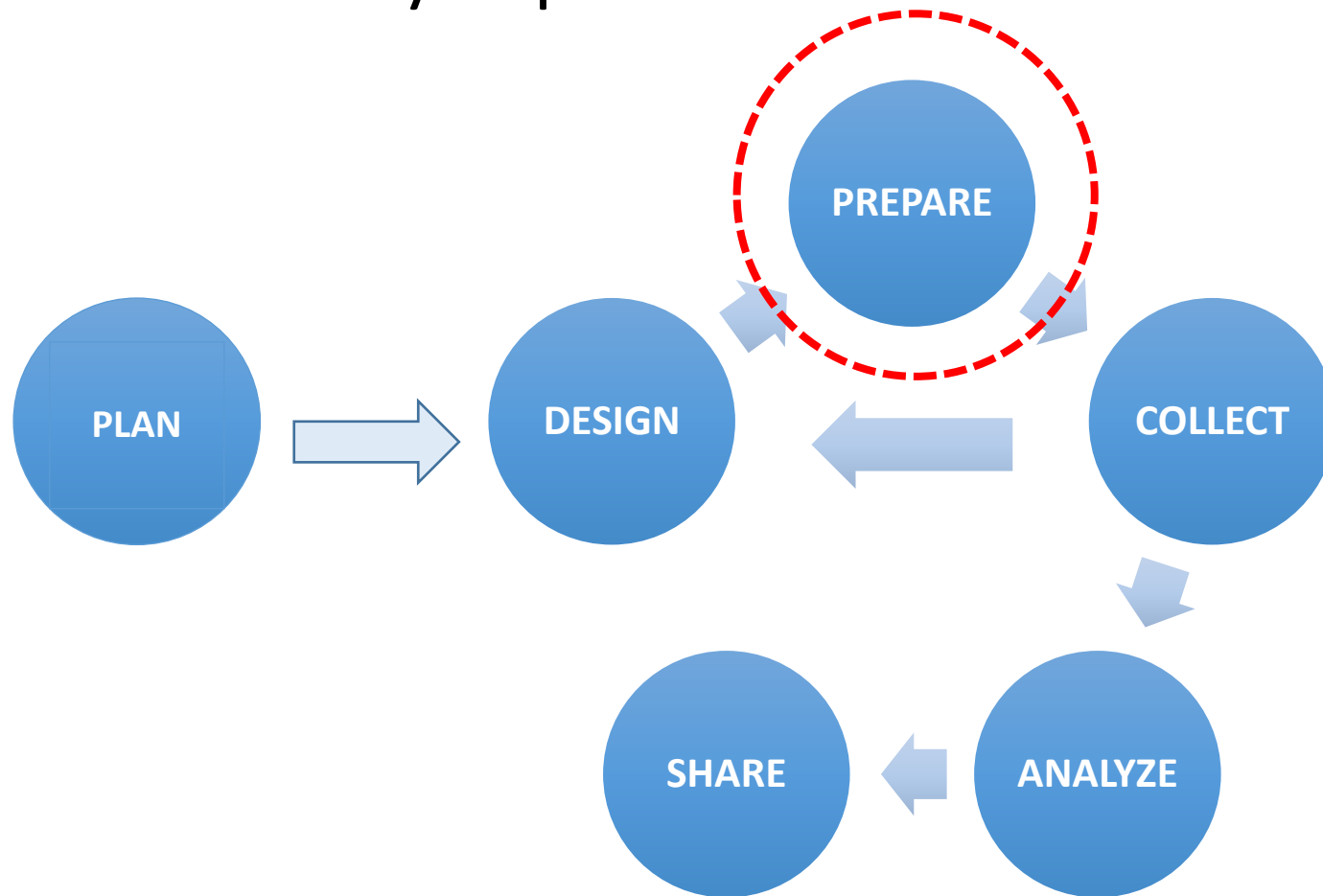
Holistic  
(1-unit of  
analysis)



Embedded  
(n-units of  
analysis)



# Case study - process





# CS design (cont.)

- Closed or flexible design (alterations after new information discovery) – change of original theoretical concerns or objectives?
- Mixed methods: a mix or combination of qualitative and quantitative research techniques
  - Either or: e.g. a case study within a survey, a survey within a case study
  - All methods used should share RQs, be complimentary in data collection, conduct counterpart analyses (follow the design)



# Preparing CS research protocol

## A: INTRODUCTION

Question(s), hypothesis, proposition..

Theoretical framework

Background data analyses (archival, ethnographic, consultations, etc.)

## B: DATA COLLECTION

Selection of sites and actors

Methods and data collection plan (scale, type of evidence, sample, etc.).

Preparation for data collection (timetable, training, letter of intent, etc.).

Interview guidelines

Pilot study (testing)

(Human subjects protection – approval)



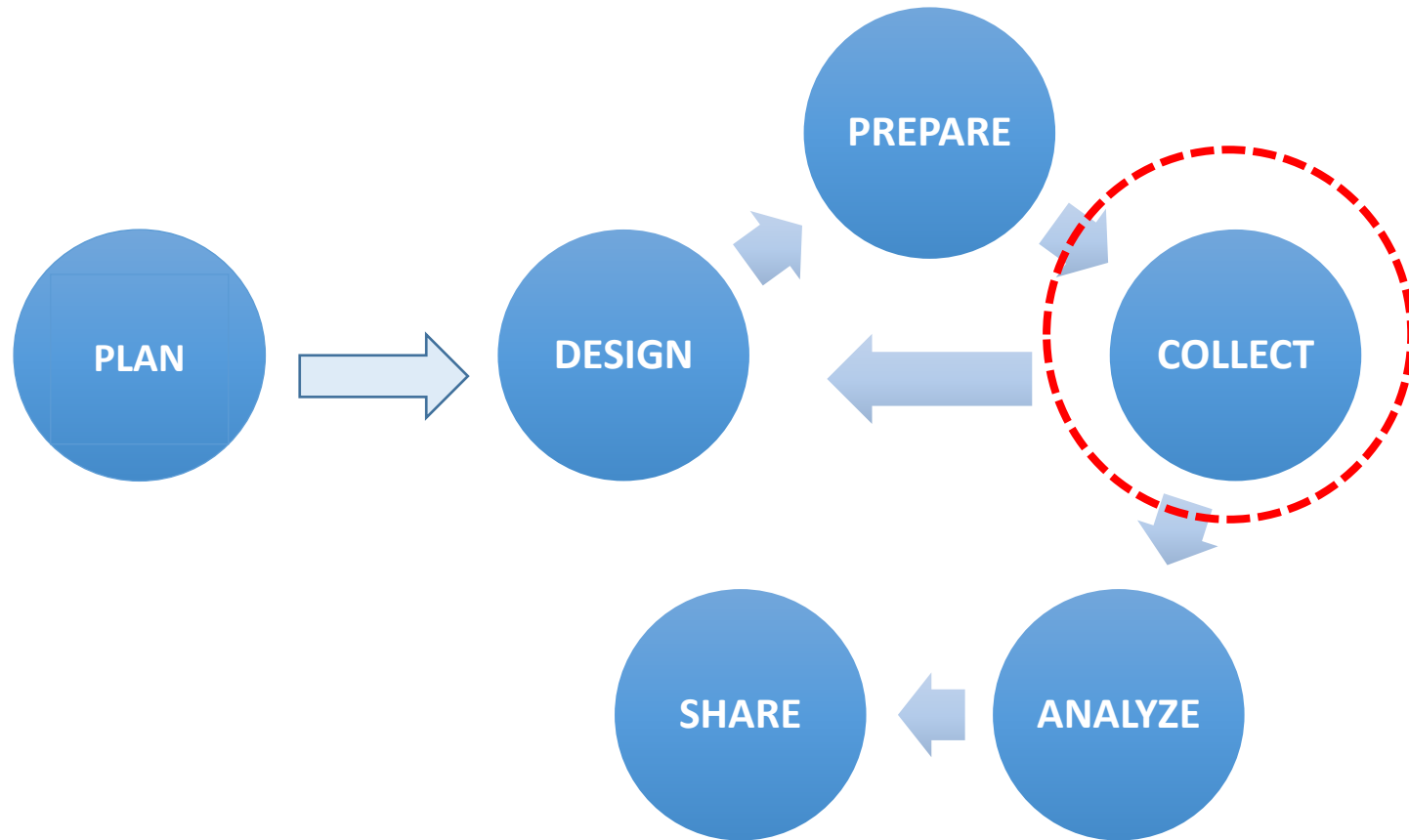
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# Case study - process



# SOURCES of evidence

**Documentation** (personal communications, press, internal reports, minutes, etc.).

**Archival records** (statistics, maps, charts, survey previously collected, etc.),

**Participatory methods - interviews** (simple- in dept interview, structured interview, semi-structred), **group interviews** (focused)

**Observations** (direct, participant)

**Artifacts** (evidence), technology, instruments, work of art, etc.

→ ***multiple sources of evidence, organise and maintain the evidence***  
(survey results, field notes, reports, transcripts of interviews, protocols, etc.)



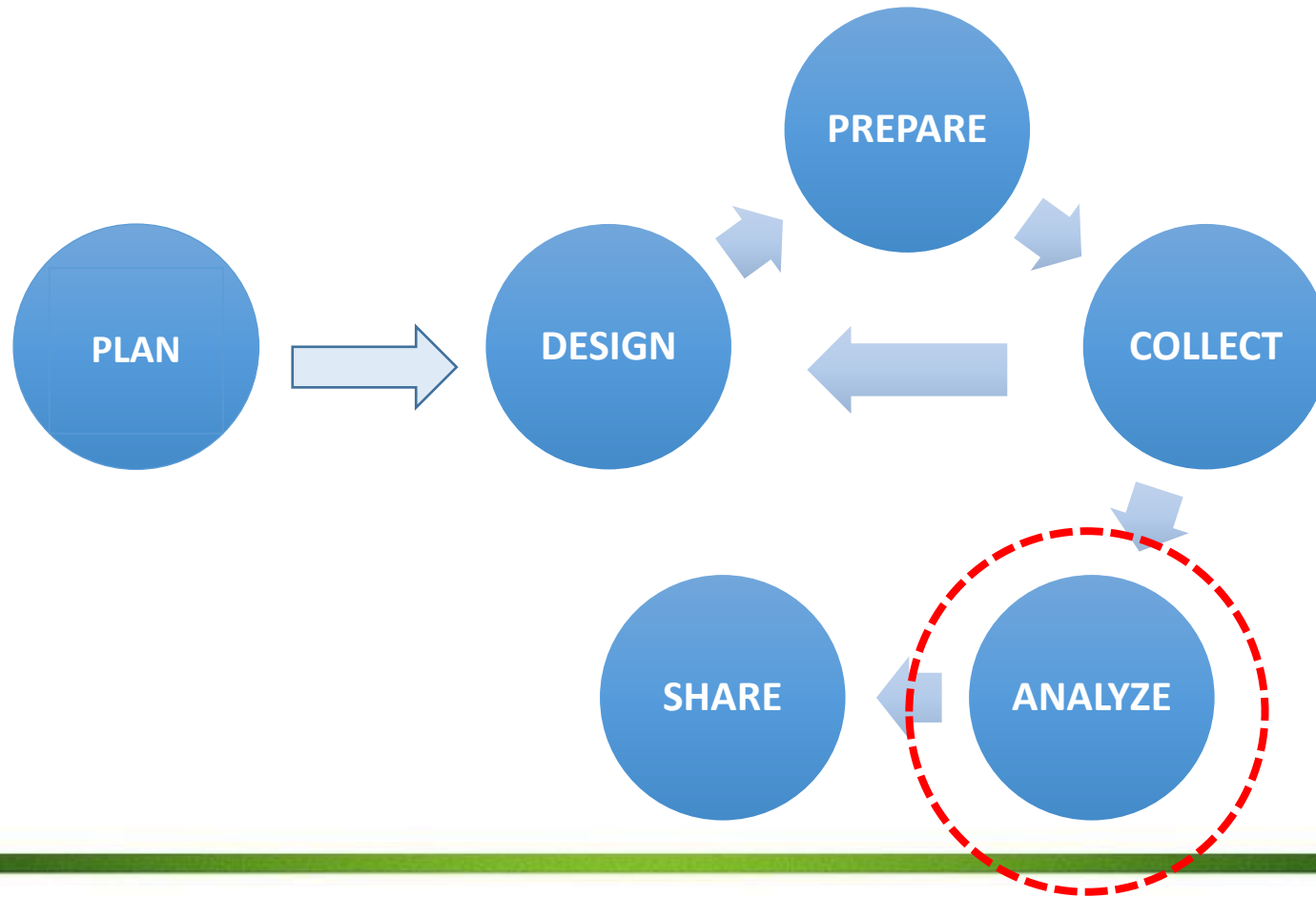
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# Case study - process



# Analysing CSs

**Pattern matching** (comparing evidence to predicted patterns)

**Explanation building** (comparing evidence against predicted pattern and revision given arguments of the case)

**Time series analyses** (population trends, etc.)

**Logic models** (a complex chain of events over an extended period of time in repeated cause-effect patterns)

**Cross case synthesis** (multiple cases – at least 2, the technique treats each study as an individual one, e.g. aggregates findings across a series of individual studies)



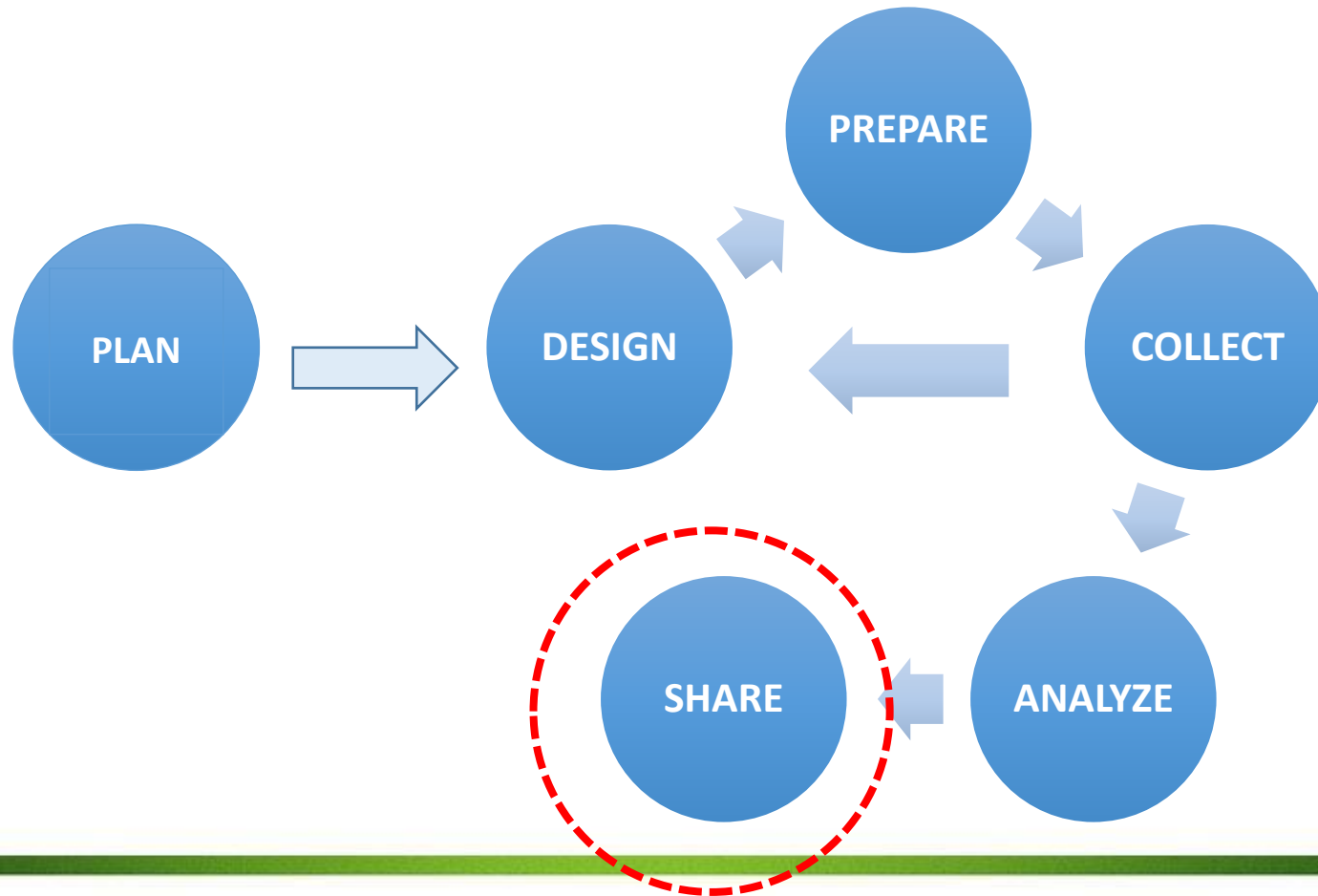
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# Case study - process





# Sharing knowledge and outcomes of your research

- Define target audience
- Compose textual and visual materials
- Display enough evidence for reader to reach own conclusions
- Review and re-write until done well (or have someone else do it for you 😊)



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# References

Glaser, B. G., Strauss, A.L. 1967. The Discovery of Grounded Theory: Strategies for Qualitative Research. Chicago: Aldine Publishing Company.

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Waller, W. 1934 Insight and Scientific Method. American Journal of Sociology 40:285-297.

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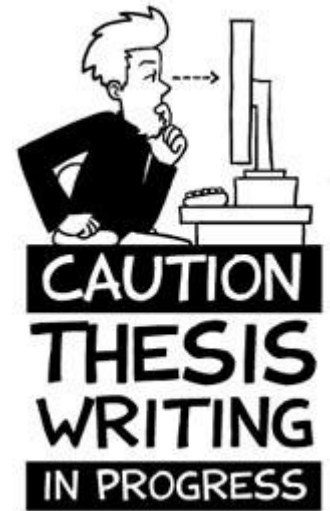


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# Assignments due 8.12.2014

- Are going to apply case study method in your phd project (description of a certain phenomenon in real time) as main or complementary research method?
- If yes, please describe each of the following in **max 200 words**:
  - Research problem**
  - Research background and motivation**
  - Research objective, research questions or hypotheses**
  - Methodology and methods to be applied** (single or multiple case study, embedded or not, random selection or information based - type, analyses)



<http://ic.pics.livejournal.com/>



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# Thank you for your attention !!!

## Questions?



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