



M506

Research Method and Scientific Work:

Research Design II:

Choosing Research Methods and Data Collection Tools

Week 4, Feb 2023

Prof. Tilmann Lindberg

Online Teaching and Learning

GISMA

BUSINESS
SCHOOL



- Camera On
- Microphone Off please
- If you need to save on bandwidth, switch off camera
- Sessions will be recorded
- If you have something to say – feel welcome – unmute and chip in

Group assignment (Week 3): Build your Conceptual Framework



- Task:
 1. What are the theoretical issues touched on in your research question?
 2. How could I break them down into variables?
 3. What dependent variables should be considered?
 4. What independent variables can be identified?
 5. What moderating variables can be identified?
 6. What mediating variables can be identified?
 7. Sketch out the variables and their relationships! (Conceptual Model)

Group assignment (Week 4): Make Core Choices of Your Research Design

In collaboration with your group members, create an overview of your (deductive) research design with justification of your choices:

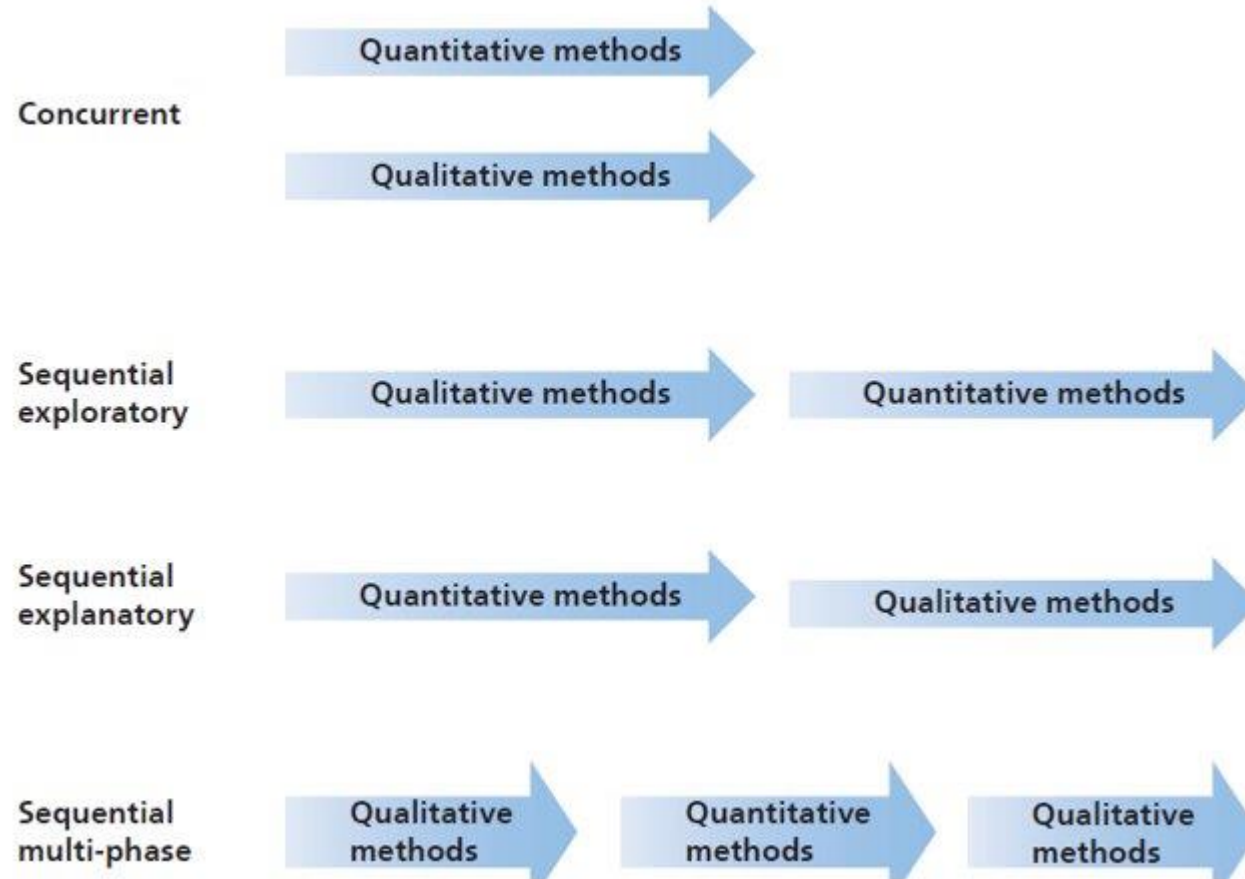
- **Do you do basic or applied research? (team choice)**
- **What is your research problem and your individual research question? Why? (team and individual choice)**
- **What is your conceptual model? Why? (individual choice)**
- **What is the unit of analysis (individual, group, organisation, technology, business models, etc.)**
- **What research method do you intend to use? Why? (team choice)**
- **What kind of data collection tool do you intend to use? Why? (team and potentially individual choice)**
- **What is your research timeline? (team and individual choice)**

Research Design – Choice 1: Which Research Method(s) to Choose?

| | Qualitative | Quantitative |
|--|--|---|
| Focus of Research | Quality (nature, essence) | Quantity (How many, how much) |
| Philosophical Roots | Interpretativism | Positivism |
| Associated Research Methods | Fieldwork, ethnography, grounded theory, expert interviews, etc. | Experiments, statistical analysis, surveys, etc. |
| Purpose of Research | Understanding, description, exploration, hypothesis development | Prediction, control, confirmation, hypothesis testing |
| Research Design Characteristics | Flexible, evolving, emergent | Pre-determined research process |
| Research Setting | Natural, familiar | Unfamiliar, artificial |
| Research Sample | Small, non-random, non-representative | Large, random, representative |
| Role of Researcher | Interpretation of qualitative data | Application of quantitative methods |
| Mode of Analysis | Inductive (by researcher) | Deductive (by statistical methods) |
| Findings | Comprehensive, complex, expansive | Precise, narrow, reductionistic |

Research Design – Choice 1: Which Research Method(s) to Choose?

Mixed Methods: Different Approaches



Reasons for Choosing Mixed Methods

- Initiation of Research Projects
- Facilitation of Complex Inquiries
- Complementarity of Different Sets of Data
- Interpretation of Various Sources
- Generalisability of Insights
- Diversity of Sources
- Problem solving in “dead end” situations
- Definition of Different Focus Areas
- Triangulation of Methods and Results
- Confidence in Generated Theories

Research Design – Choice 2: What kind of Research Strategy?

A **research strategy** is a conceptual framework indicating guiding principles for the collection and analysis of data, as well as on the processes and constraints of theory development.

- **Experiment:** The study of the impact of an independent variable on a dependent variable in a rigorously controlled, artificial setting.
- **Survey:** Scholarly inquiry through asking a set of questions to people, usually in form of questionnaires with an emphasis on quantifiable answers.
- **Archival and documentary research:** Systematic study of secondary data stored in written, visual and audio form (such as letters, memos, video recordings, recorded speeches, etc.).
- **Case study:** “an in-depth inquiry into a topic or phenomenon within its real-life setting.” (Yin 2018) Such settings may persons, teams, organisations, change processes, etc.

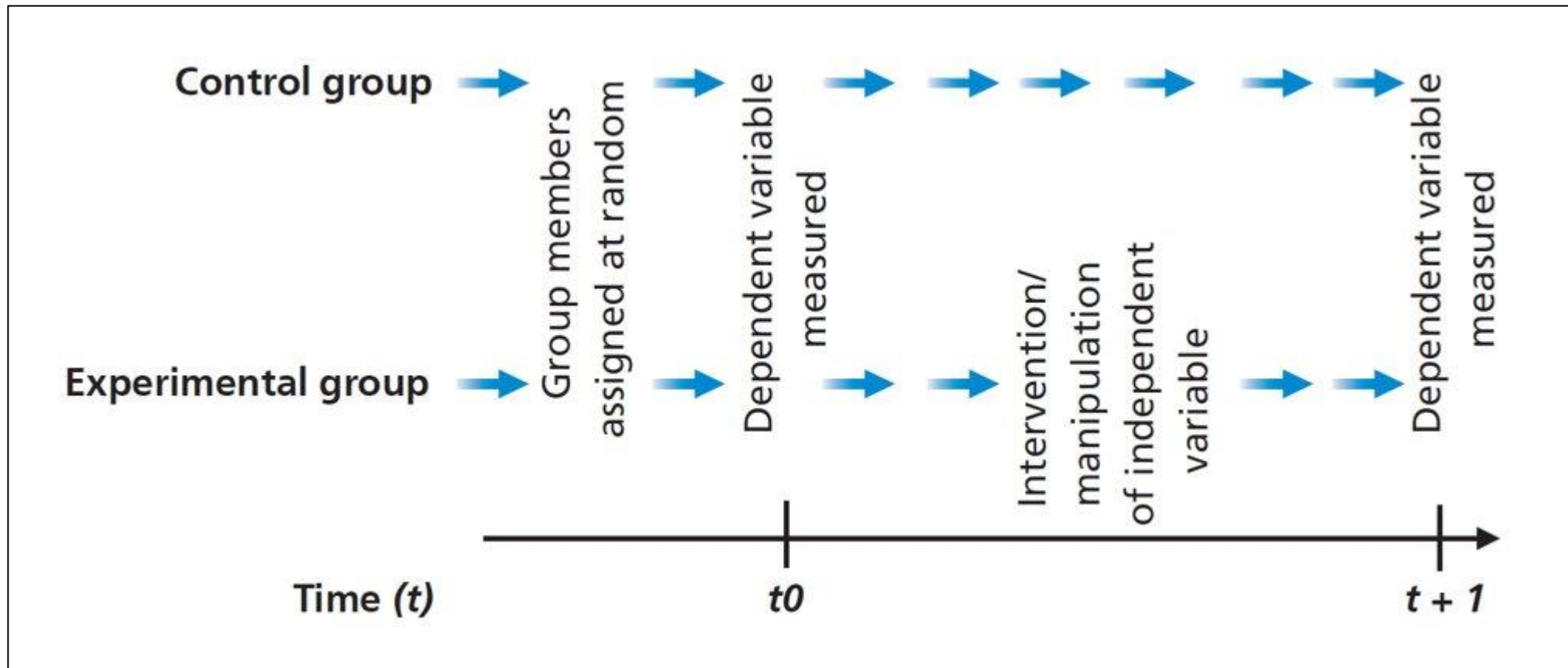
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- **Ethnography:** Detailed study of the “culture or social world of a group” (Saunders et al. 2019)
- **Action Research:** An “emergent and iterative process” (Saunders et al. 2019) of investigating a social situation or social process by immediate and reflective participation of the researcher.
- **Grounded Theory:** An emergent approach for the generation of theories through the careful interpretation of qualitative empirical data.
- **Narrative Inquiry:** Scholarly inquiry into narrations, with a focus of social context and the embeddedness in time of social events.

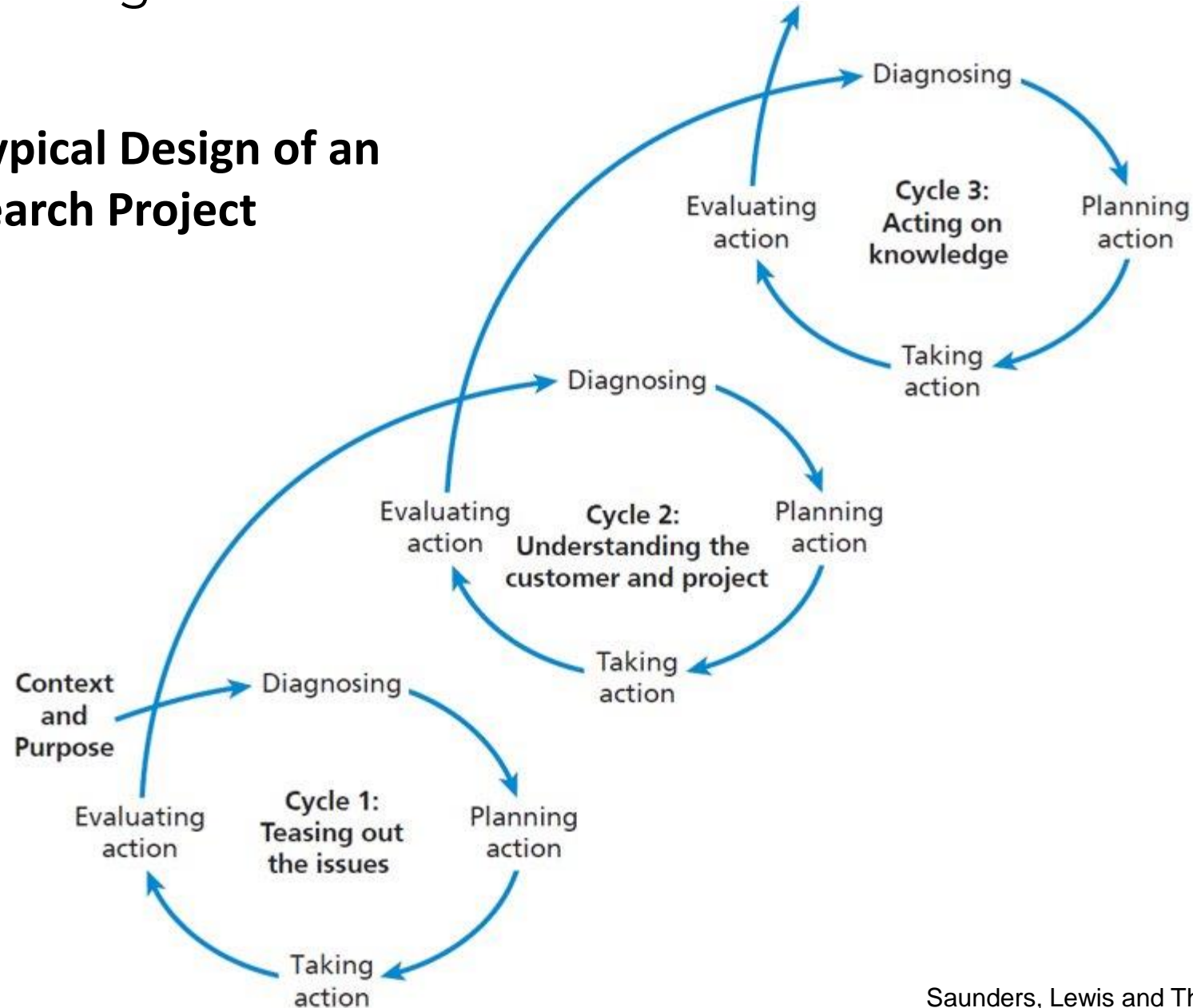
Research Design – Choice 2: What kind of Research Strategy?

Example: Typical Design of an Experiment



Research Design – Choice 2: What kind of Research Strategy?

Example: Typical Design of an Action Research Project



Research Design – Choice 3: What Time Horizon?

Discussion:
When do you use which approach?

Cross-sectional study:

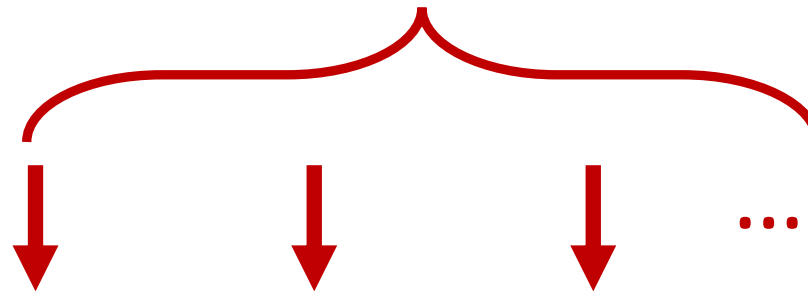
Data collection from one or more samples at one point of time!



time

Longitudinal study:

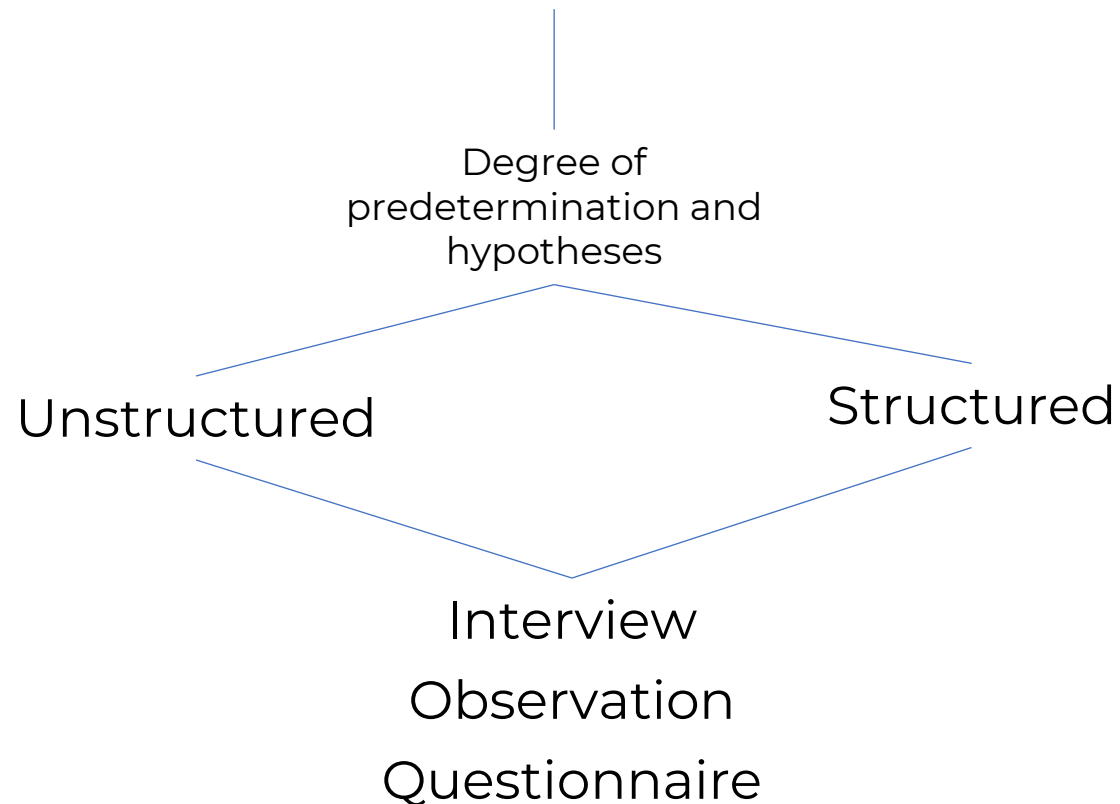
Data collection of the same sample over various points of time!



time

Research Design – Choice 4: What Kind of Data Collection Method(s)

Data Collection Methods



| Questionnaires | Interviews | Observations |
|--|---|---|
| Variants: Postal, Email, Fax, Online | Variants: Face-to-Face, Telephone, Focus Group | Variants: Structured vs unstructured, participant vs. non-participant, controlled vs. non-controlled, concealed vs. non-concealed |
| Type of Delivery: Self-administered | Type of Delivery: Administered by interviewer | Type of Delivery: Administered by observer |
| Type of research: Qualitative or quantitative | Type of research: Usually qualitative | Type of research: Qualitative or quantitative |
| Usual question type: Closed questions, rarely open questions | Usual question type: Open question, rarely closed questions | Usual question type (guiding the focus of the observer): open /closed |
| Sequence of questions: Structured | Sequence of questions: Structured, semi-structured, unstructured | Sequence of events: Structured, unstructured |
| Advantages: accurate data, cost-effective generation of larger data quantities, easily comparable results | Advantages: Verbal and non-verbal communication matters, feedback possible, flexibility in interview situation, immediate data collection | Advantages: Generation of behavioural data, vast variety of settings / social interaction open for research, immediate data collection |
| Disadvantages: Impersonal; follow-up question or clarifications not possible; accuracy of answers difficult to determine; high demand on questionnaire design | Disadvantages: Higher demands for preparation and administration; dancing around personal issues, transcribing and analysing data time-consuming and demanding | Disadvantages: High dependency of the observer, documentation and transparency of results difficult to trace back, partly extensive research settings, data analysis demanding |

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... thank you for your attention!