



Research Methods

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Plans for Today

- Sharing:
 - Research Questions and Literature Review
- Data Collection Methods
 - Observational techniques
 - Non-observation techniques
- Group Presentations of Critical Analysis:
 - Group D
 - Group E

Afternoon tasks:

- Online assignment (send via email by **Friday, May 5**): **Research Site & Participants (3), Data Collection Methods (4)**



Sharing

Experiences with Research Proposal so far

- Research topic
- Research questions
- Literature Review

Quantitative Research

The Experimental Method

- An experiment is a study of **cause and effect**. It involves the deliberate manipulation of one variable, while trying to keep all other variables constant.
- Researchers try to keep all aspects of the situation constant except one - the one they are looking at.

An example...

- Suppose we want to investigate which of two methods is more successful at teaching children to read.
- The aspect that we vary is called the **independent variable (IV)** and we change this in a very precise way. In this example the teaching method is the independent variable.
- We call the factor which we then measure, in our example it would be some measure of the children's reading ability, the **dependent variable (DV)**, because, if our ideas are correct, it depends on the independent variable. In our example, the children's reading ability **depends** on the teaching method used.
- The most common way to design an experiment is to divide the participants into 2 groups, the **experimental** group and the **control** group, and then introduce a change for the experimental group and not the control group.



Qualitative Research

- Relies on exploratory and interpretive methods
- Allows teachers to explore the realities of classroom circumstances without the requirement to control variables in the classroom context

Ethnography

- The study of people's behavior in natural social settings, with a focus on detailed, intensive and systematic descriptions and cultural interpretations
- Comes from the field of anthropology
- Characteristics:
 - Descriptive: long-term engagement; careful recording of observations and interpretations
 - Holistic: it interprets individual behavior in the context of cultural patterns shared by a group.
 - Focused: a system of categories for observation is developed through systematic inquiry and analysis
 - Comparative: results from previous studies are used for comparison
 - Theoretical endeavors: seek to build a "grounded theory" (Strauss & Corbin, 1990) derived from data collected in the field, which becomes "part of a body of comparative knowledge from which generalizations can be made" (Philipsen, 1989).

Case Study

- Case study refers to the collection and presentation of detailed information about a particular participant or small group.
- A form of qualitative descriptive research, the case study looks intensely at an individual or small participant pool, drawing conclusions only about that participant or group and only in that specific context.
- A case study emphasizes detailed contextual analysis of a limited number of events or conditions and their relationships.



Action Research

- A form of self-reflective enquiry undertaken by participants in social situations in order to improve their own practices, their understandings of their practice, and the situation in which their practices are carried out
- Characteristics:
 - localized and small-scale
 - evaluative and reflective
 - participatory and collaborative
 - provides an impetus for change



Surveys

- Surveys are widely used collecting data in most areas of social inquiry.
- The overall purpose is to obtain a snapshot of conditions, attitudes, and/or events of an entire population at a single point in time by collecting data from a sample drawn from that population.



Observational Techniques for Data Collection

Observational Techniques

■ Notes

- Descriptions and accounts of observed events, including non-verbal information, physical settings, group structures, interactions between participants

■ Diaries/Journals

- Regular dated accounts of teaching/learning plans, activities, events, including personal philosophies, feelings, reactions, reflections

Observational Techniques

- Recordings

- Audio or video

- Transcripts

- Written representations of recordings

- Diagrams

- Maps or drawings of the classroom indicating physical layout and/or student-teacher interactions or locations

Observation

- Enables the researcher to document and reflect systematically upon interactions and events as they actually occur rather than as they think they occur
- Observations offer new perspectives to familiar situations.
- Considerations:
 - Decide on a focus for the observation
 - Identify a physical location
 - Consider the individual or group to be observed
 - Be objective as possible. Avoid using attitudinal or evaluative language
 - Record complete events or incidents
 - Develop a system

Observation Roles

- Participant observation
 - Entering the research setting and observing oneself as well as the others in the context. The researcher is a member of the context and participates in its culture and activities
- Non-participant observation
 - Watching and recording without personal involvement in the context. The aim is to remain aloof and distant and not have contact with the participants
- In reality, there is always a **range** in the levels of involvement



Field notes

- Descriptions and accounts of events in the research context that are written in a relatively factual and objective style
- Include reports of non-verbal information, physical settings, groups structures, interactions between participants
- Can be written as “jottings” made on the spot if time isn’ t available and written up later when there is more time to describe, interpret, and reflect upon the events

observing and recording field notes.

- Make mental notes and record them as soon as possible after observing.
- Jot down key information.
- Capture key words and phrases without a lot of explanation.
- Use a mnemonic device to help reconstruct the observed events.
- Don't worry about grammar or other rules.
- Trace what you did during the day.
- Avoid the temptation to recreate dialogue





Diaries or Journals

- Can be an alternative or supplement to field notes.
- Provide a continuing account of perspectives, thought processes, critical events, issues
- Contain more subjective and personal reflections and interpretations

Proformas

- A way to distinguish the descriptive (objective) aspects of observations from the reflective (subjective) aspects
- Allows analysis and interpretations to become more focused
- Usually organized in a grid

Date	Issue/ Question	Action	Reflections/ Comments

Coaching Observation Form: Guided Reading

Coaching Cycle Goal:

Previous Next Steps to be addressed in this Lesson:

Observation Notes:

PREPARATION	EVIDENCE
Identify reading strategy	
Select appropriate level text that will give students opportunities to practice	
BEFORE READING (5 min)	EVIDENCE
Book Introduction (quick gist statement) Name the reading strategy (make it specific) <ul style="list-style-type: none">▪ model strategy▪ explain strategy and give an example▪ guided practice Address potential challenges in text (vocab, concepts, format/structure) <ul style="list-style-type: none">▪ 1-2▪ show in context of text and how you might gather clues about these words	
DURING READING (10-12 mins)	EVIDENCE
Student independently apply strategy <ul style="list-style-type: none">▪ coach students individually/as needed▪ take notes on reading behaviors used/not used (can be used for teaching point after reading)	
AFTER READING	EVIDENCE
Begin a comprehension conversation! <ul style="list-style-type: none">▪ deep retell▪ targeted question(s) tied to target Diagnose/Follow-up on confusion - prompt as needed <ul style="list-style-type: none">▪ opportunity to follow up on anything observed during reading Ask a mix of Qs - Factual, Inferential, Critical Prompt for Habits of Discussion	

Audio and Video Recordings

- Capture in detail naturalistic interactions and verbatim utterances

	Advantages	Disadvantages
Video	Capture a greater range of verbal and non-verbal behaviors	Participants can be more easily identified (confidentiality issues). Presence of video is more intrusive and more conducive to distraction
Audio	Less intrusive and more practical/easier to set up	Fails to capture non-verbal interactions and other contextual details



Transcription

- Allows researchers to concentrate the mind considerably beyond simply listening or watching and provides a basis for more in-depth analysis
- A major drawback is that it is very time-consuming. One way to overcome this issue is to only transcribe small portions of recordings.
- Data can be transcribed in many ways, ranging from highly detailed and complex systems to simple orthographic representations

Photography

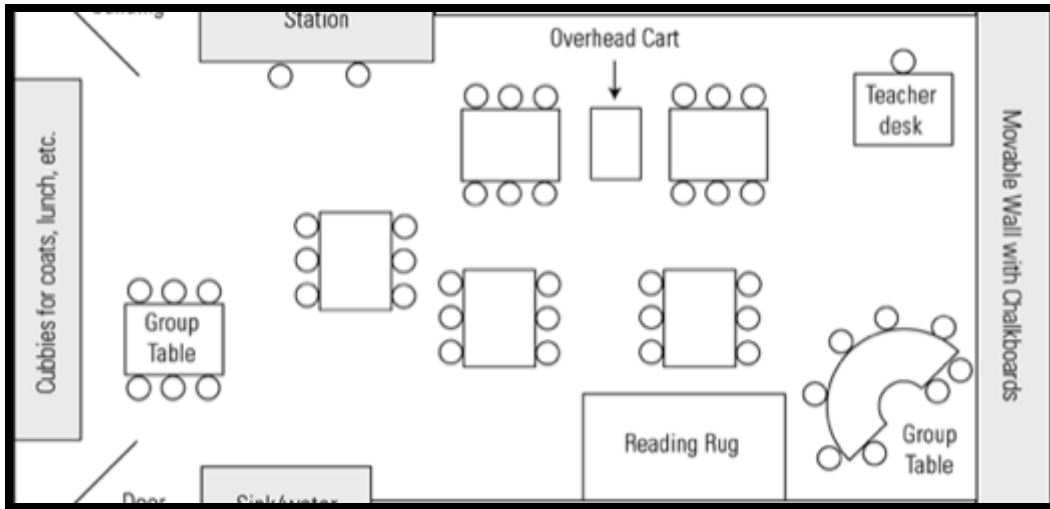
- When used with other qualitative techniques, photographs can provide visual stimuli for analysis and can help present the data to others





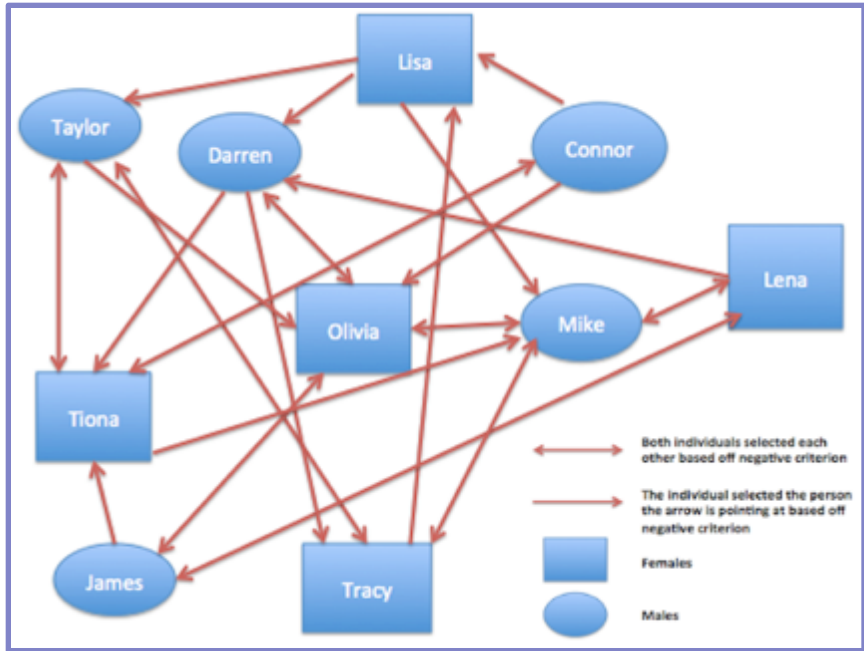
Diagrams

- Layouts, maps and sociograms are useful in documenting the social structure of events, how spaces are used in interactions, and how movements contribute to different patterns of interaction

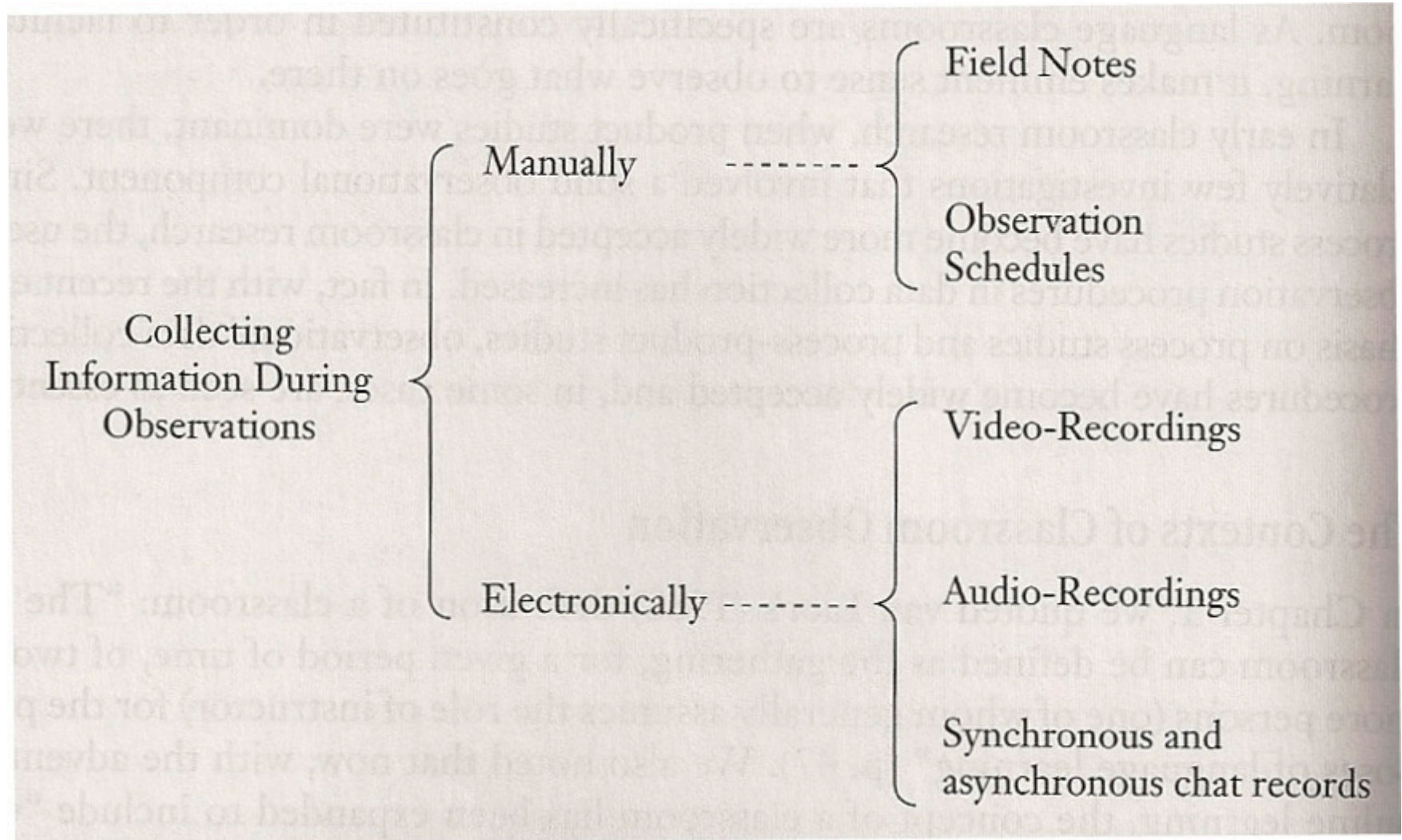


map/layout

sociogram



To recap...





Group Sharing

- Share your research question(s) with your group members
- Discuss:
 - What type of data collection methods would be helpful for your studies?
 - Would it be beneficial to use observational techniques?