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### field studies - learning objectives

explain what field work is

identify and explain different field study variants identify the principles of field work and how they differ

explain the different methods used in field work

explain different sampling methods

know how to prepare and run a field session

identify a good interview question from a bad one

know what to do once you' ve captured the data

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### what is a field study?

field study is a general term that denotes a study that takes place in context

value of context? what people say and what they do can vary significantly

### compare & contrast

studying a smartphone application in the lab compared to in the field

identify the pros and cons of each approach

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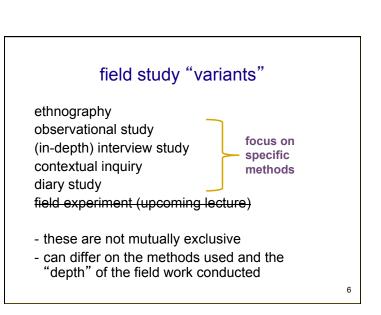
### principles of field work

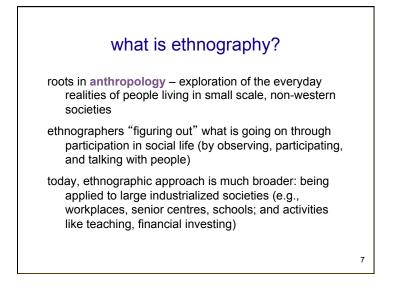
natural settings –

holistic -

descriptive -

members' point of view -





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### a note on terminology

variation in language:

some refer to all field work as ethnography, which isn't correct

it is common to equate field study with ethnographically-informed study or a study that takes an ethnographic approach

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### getting started: research objectives

formulate research objectives:

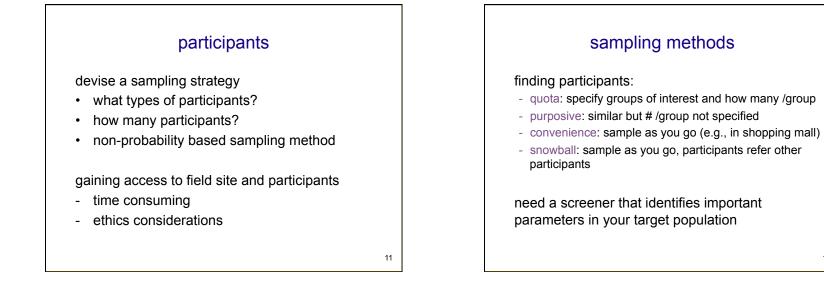
- states what one wants to achieve
- use objectives to set initial scope
- e.g., to understand how doctors manage patient records and the implications this activity has for the design of electronic medical records



- driven by research objectives or development goals
- centered on general issues
- answers not anticipated or assumed
- e.g., what are the triggers that result in a doctor updating (or referencing) a patient record?
- others?
- more on focal points in Field I tutorial

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### recruiting participants

can be more involved than for lab studies:

- higher threshold, participants allowing you into their "space"
- often involves more time than a lab study
- consider appropriate incentive (lab study norms not necessarily appropriate: e.g., \$10/hr)

usually far fewer participants than in a lab study, 3-12 is common

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### data collection methods

select methods that will address focal points and that will be appropriate for chosen site

observation interviews self-report techniques remote techniques

nearly all field work involves observation & interviews

observation

goal to capture tacit knowledge and ward against participants trying to please observer

duration can vary dramatically (small # of days to a year or more!)

degree of involvement: observer-participant to participant-observer

can you identify the pros & cons?

can be person/event/place/or object focusedcan you think of an example for each?

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### specifics on observation

look for what people do, not what they say

### direct observations

- · researcher on site, in context
- · participate as little as possible
- take notes, audio tape conversational components, collect artifacts, take pictures of artifacts that cannot be taken, sometimes videotape as a backup

### video observations

- researcher not present, video camera capturing instead
- · can be less intrusive for participant

### interviews

continuum: unstructured, semi-structured, structured

early stages of research use unstructured – why?

later stage more structured - why?

### interviewing is an art: guidelines interview in everyday, familiar settings – take cues from context look for specific examples & artifacts do not pre-suppose answer • How often do you use your mobile phone to call family members?

 How often do you use your mobile phone to call family members? VERSUS What are the ways in which you communicate with your loved ones?

be open-ended - avoid yes/no questions

be flexible to adapt line of questioning

establish and maintain good rapport

casual conversation is not bad assume respondent is expert

do not interrupt unnecessarily

plan questions that allow triangulation – ask the same question in different ways

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## interview question example

Imagine you are trying to understand how home inhabitants communicate with one another using post-it notes. Which interview question is most appropriate?

- 1. Can you show me where you leave information for someone else?
- 2. Can you show me where others leave information for you?
- 3. Where do you leave information for someone else?
- 4. Where do people leave information for other people?

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### self-report techniques

### diaries

- participant's written record of specific events, or can be what is happening at prompted moments
- free form or structured recordings
- e.g., study on exploratory learning "Eureka" moments (Rieman & Lewis, 1996)

### visual stories

- pictorial diaries, use a camera in addition to text
- e.g., study using video to document file retrieval (Blomberg, Suchman, and Trigg, 1996)

### remote data collection

remote video and audio via the Internet remote interactions collected through logging

- e.g. MSWord Personal study (McGrenere, Baecker, & Booth, 2002) – *a reading in this course*
- Google does studies ALL THE TIME

### contextual inquiry

structured method for gathering information in field work

goal: to bring it to the design process

between observation and interview: idea is to intensely interview people while they work

### principles:

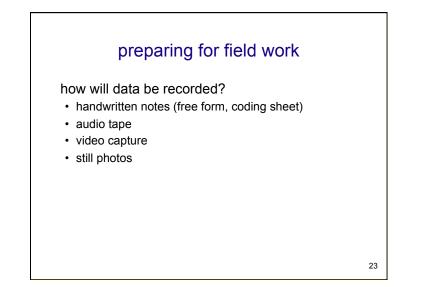
1. context

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- 2. partnership: share control, participant is expert
- 3. focus: keep sight on research objectives, do not try and understand full culture

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### what do you need to bring?

consent forms

screening forms (if participant selection not done in advance)

audio/video equipment

• extra tapes, microphone?, extra batteries, tripod

note taking equipment

instruments: interview scripts, questionnaire?

-> just because it is a qualitative method does not mean that detailed preparation is not required!

### primary and secondary interviewing roles

### there is too much for one person to do!

### primary

- usually the person who has contacted the participant
- guides the discussion

### secondary

- responsible for most data capture (all recording devices, primary notes, artifact collection)

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# pilot testing

is just as important as it is in lab studies!

### check for

- duration
- clarity of interview questions, non-repetitive, ability to deliver the script fluidly
- utility of observation sheet
- robustness and ability to operate recording equipment
- bottom line: do you get meaningful data?

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# <list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item>

# data analysis circulate notes and transcriptions among team

hold video analysis sessions

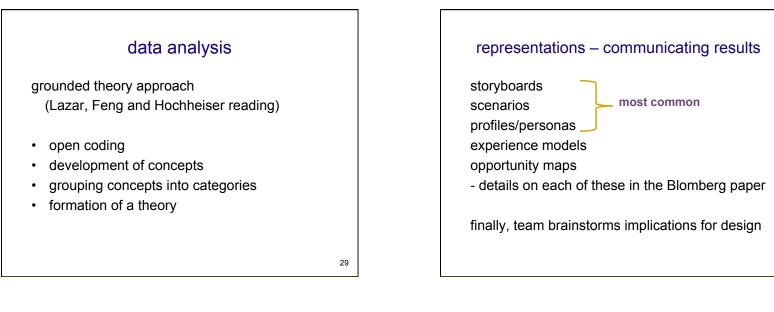
identify patterns: in behaviour, events, artifacts, within and across individuals

common technique: affinity diagrams

triangulate data where possible

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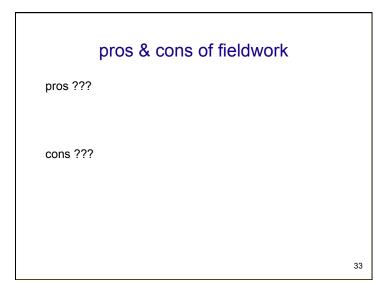




### when to use field methods

most often for pre-design cost-benefit tradeoff easiest to make but can be used at any stage

note: interviews & observations are often used throughout the design/evaluation cycle – but there is a difference between using these methods **in** and **out** of context



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