

Pilot study

ESF: DXH_MET2 Metodologie 2

Recap from DHX_MET1

So far we have discussed mainly the conceptual side of your projects

- Research question as a focus and a „handle“
- Hypotheses as informed expectations, and clarifications of RQ
- Variables as (observable) representations of the concepts in RQ/H and their measures
- Designs allowing us to use the measures to create meaningful data to answer RQ

Recap

We have not talked much about

- Data analysis
- Practical side of the projects
 - There are numerous details in designs-measures-analyses which are necessary to make it work, or threaten the success of the whole study
 - It is easier to learn them hands-on trying to understand them

Conceptually, projects are (more or less) in progress...

... it's time to prepare a pilot study

Plan for this semester: do a small pilot study for one of your RQ

4 meetings:

- Take stock, see what's missing; measures, materials, instructions
- Finalize procedure/protocol from recruitment to debriefing, decide on participants, check ethics and seek approval
- (in the meantime) ... brush up data-analysis skills
- Reflect on pilot experience, refine data-analysis plan and power analysis

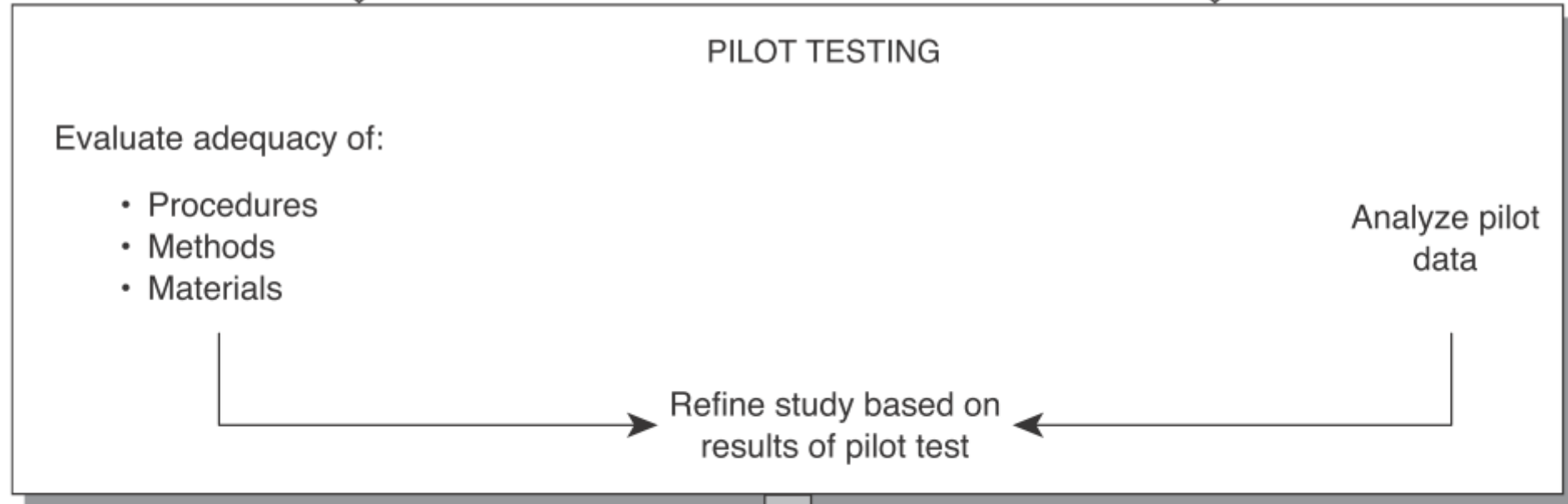
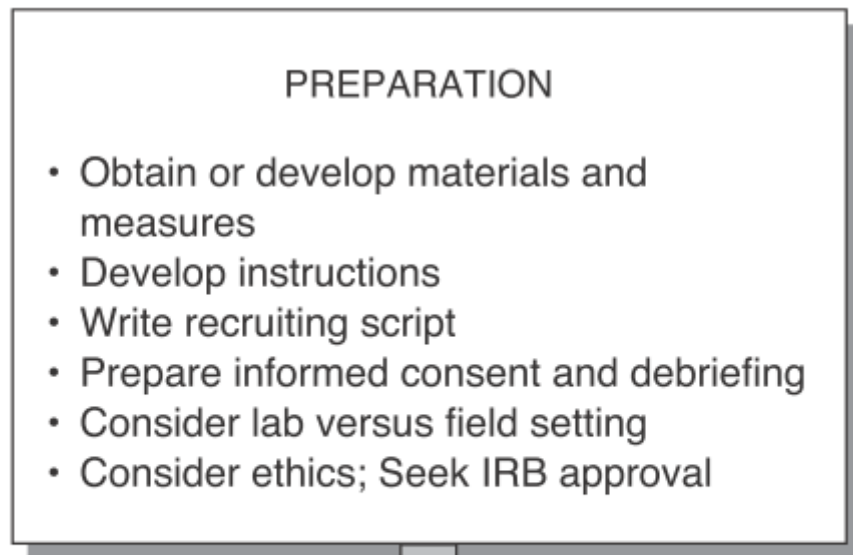
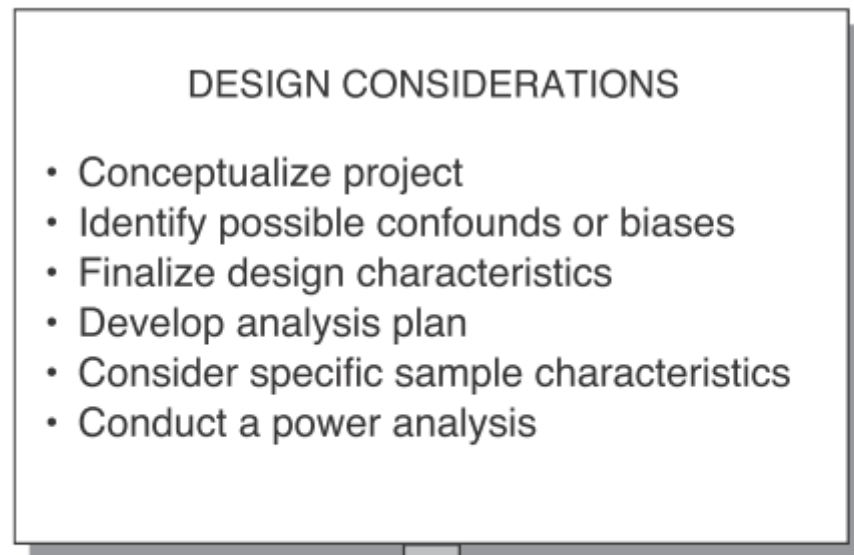
Focus of DHX_MET2

- Projects with people as the primary objects or sources of data

Purpose for a Pilot study

- test feasibility of plan
 - methods work
 - participants go through the whole procedure without issues
 - data look as expected
 - analysis feasibility
- do people (participants) function as I imagine them?
- identify weak spots - tune the plan

- Murphy's laws apply



Choose a RQ/H you want to pilot

- in groups of 2 or 3

Take stock

DESIGN CONSIDERATIONS

- Conceptualize project
- Identify possible confounds or biases
- Finalize design characteristics
- Develop analysis plan
- Consider specific sample characteristics
- Conduct a power analysis

PREPARATION

- Obtain or develop materials and measures
- Develop instructions
- Write recruiting script
- Prepare informed consent and debriefing
- Consider lab versus field setting
- Consider ethics; Seek IRB approval

Measures, materials

- Full version of your measures + what it measures
- If some stimuli materials are used, what exactly are they going to be

Instructions, administration

- How exactly are you going to administer the measure to a participant

Gather what you have and show it to a colleague

- „I'm going to measure the participants' CHARACTERISTIC(S) i the following way:....“
- As a colleague look at it from the perspective of
 - a participant – how do you react to the measure, the intention to measure..
 - a colleague – do you believe it will work as expected?
 - Be sceptical, be critical ... of the materials

Possible sources of problems in asking questions. Respondents....

- May not understand, may misunderstand
- May not know the answer or how to get to answer
- May not be motivated to invest energy in getting the best (truest) possible answer
- May have trouble fitting their answer to the response scale you offer
- May not want to tell you the (known) answer (even though they agreed to participate)
 - May not even want to know the answer
- May have their own agenda with respect to your study
- May just wanna have fun

Possible sources of problems in observing behavior (e.g. games)

- Opportunities for observation error – vague definitions of categories, high cognitive demands on observer
 - Missing important situational factors, determinants
 - Fundamental attribution error
 - Missing unobservable personal variables
 - Not optimal scale of behavior – too micro, too macro
-
- unless the observed behavior does not represent something else

Homework

- Finalize measures, materials, instructions for individual measures
- Next, we will combine it with design plans into a protocol for the pilot