

# MOBILE INTERACTION DESIGN RESEARCH

## from usability to user experience

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# Usability

- Usability beskriver kvaliteten af et interaktionsdesign
- Brugeren forhindres eller sinkes i at realisere hensigten/målet med at anvende systemet. Forhindringen er oplevet af en konkret bruger
- Interaktive systemer som er brugbare er:
  - Let at lære
  - Let at huske
  - Effektivt at bruge
  - Forståeligt
  - Tilfredsstillende at bruge

# User Experience

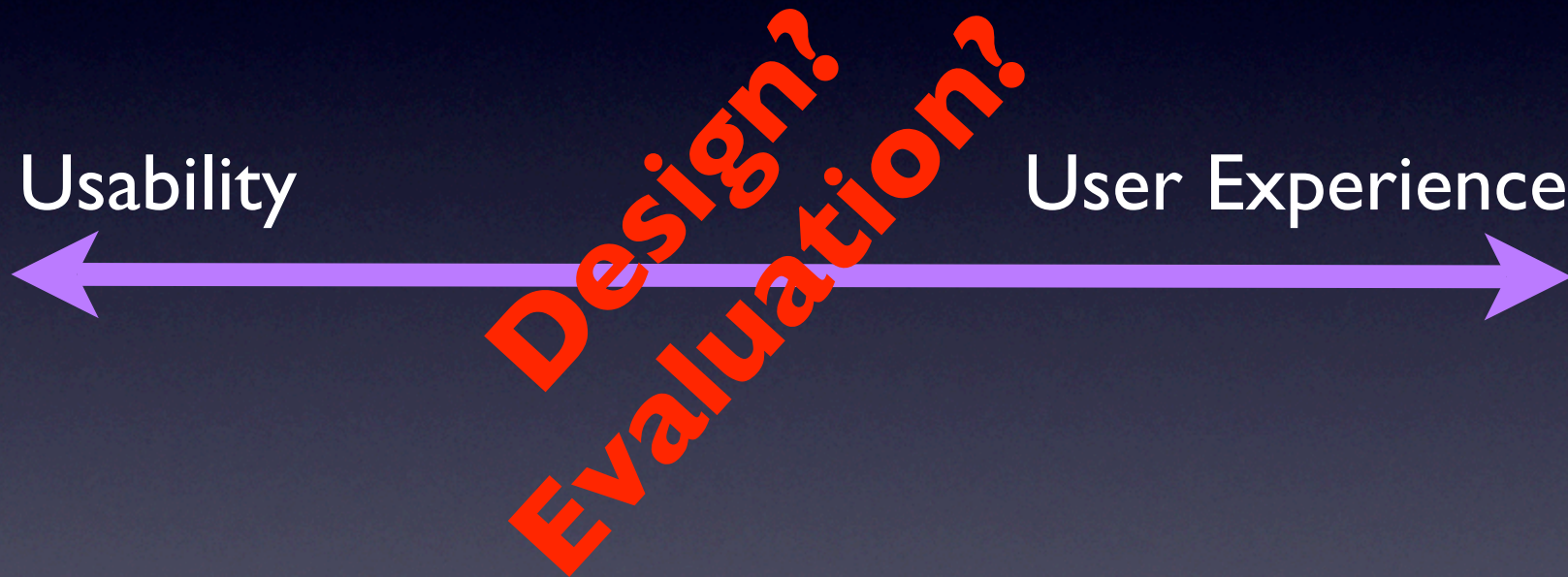
**engagement** is  
identity, adaptivity,  
narrative, immersion,  
flow

**pleasure** is physio-,  
socio-, psycho- and  
ideo-pleasure





# From Usability to User Experience





# Lab vs. field

## Field studies

- Realistic use context
- Difficult to control
- Complicated data collection
- Complex and time consuming
- Safety and ethical issues

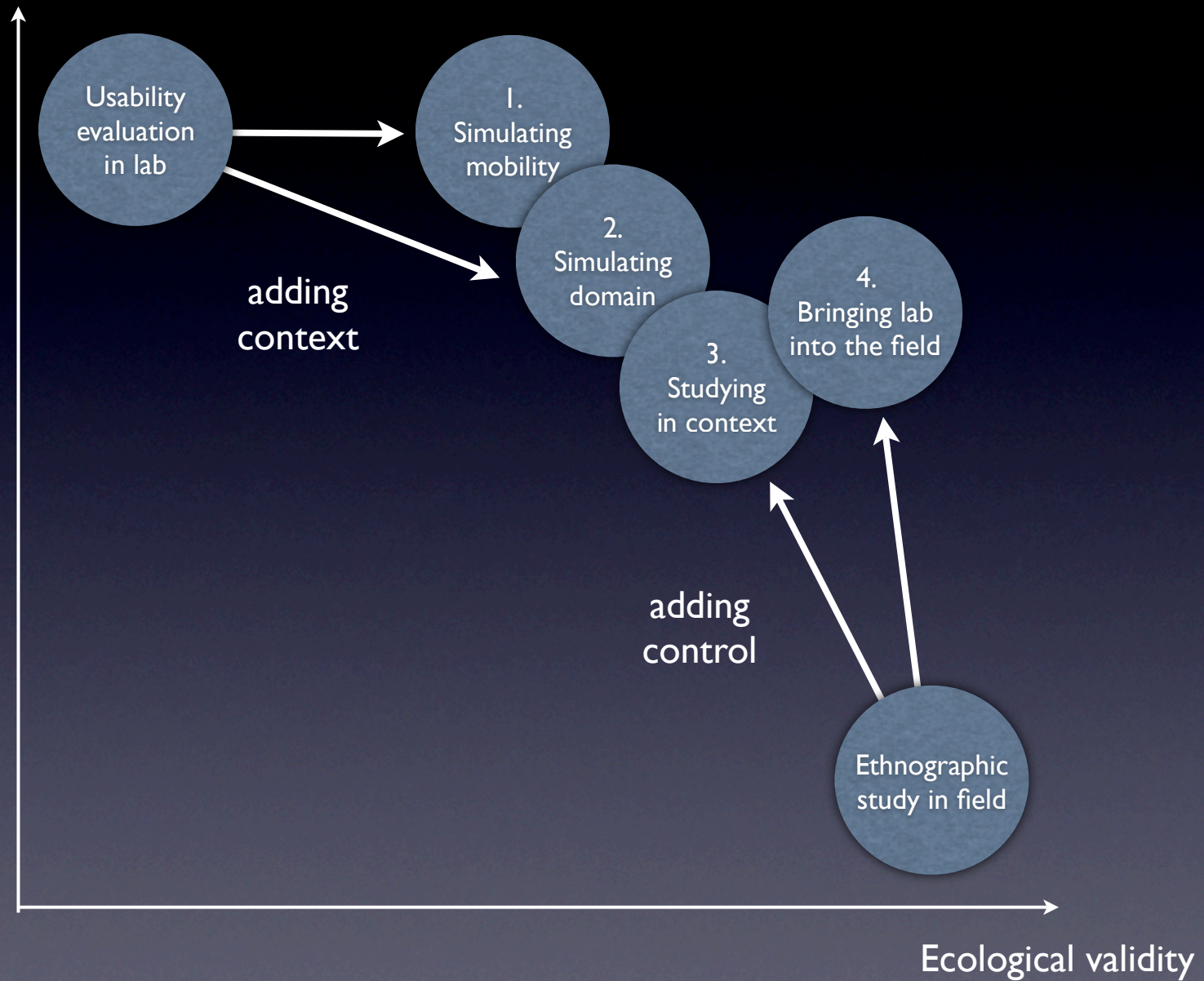


## Laboratory studies

- Experimental control
- High quality data collection
- Lack of realism

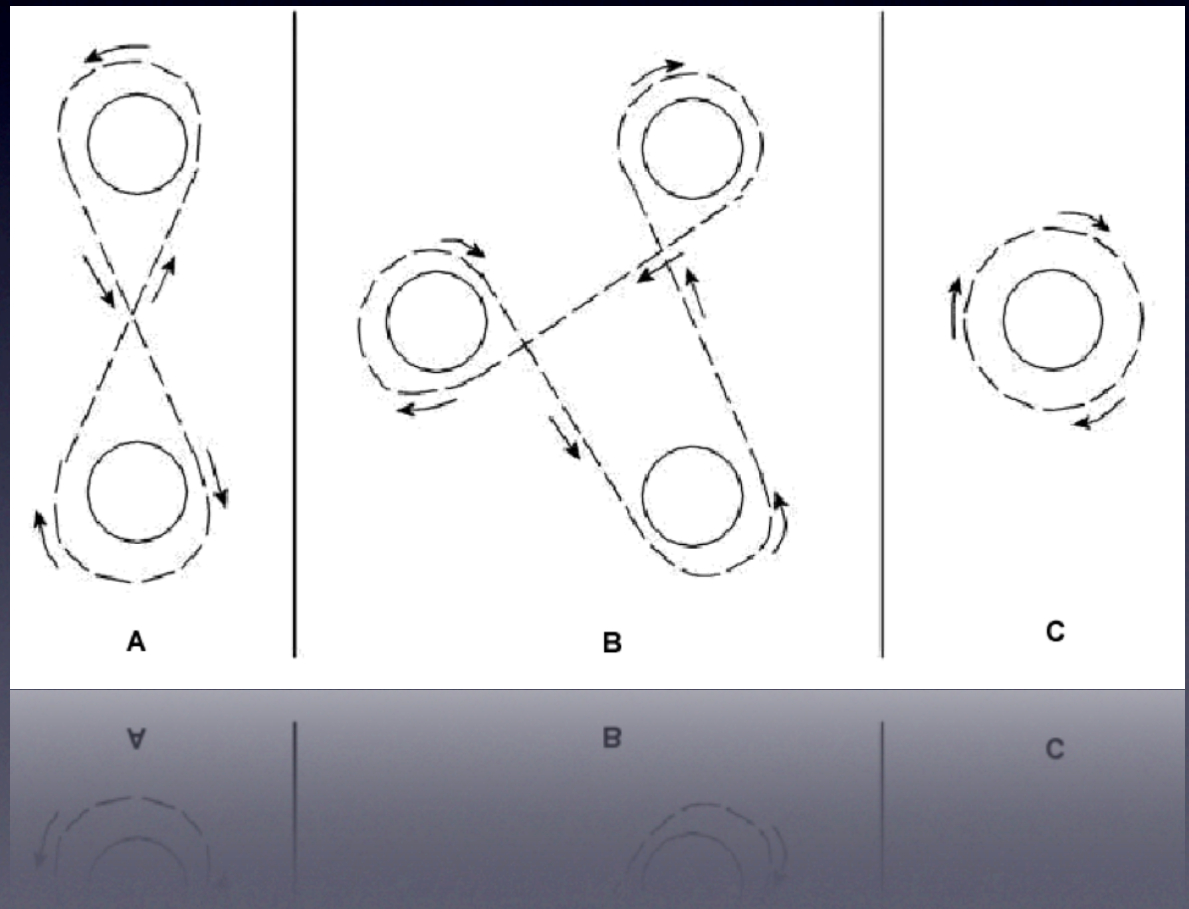


Control



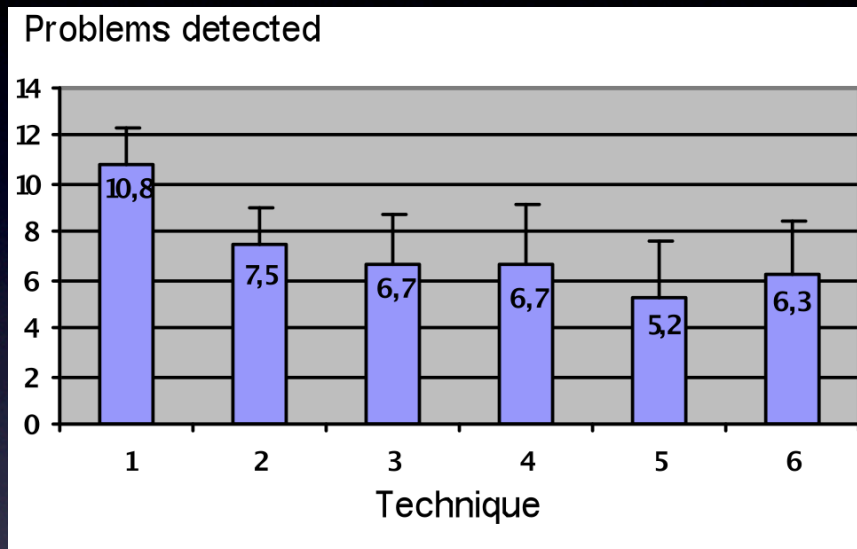


# Simulating mobility





# 6 techniques compared



1. Sitting at a table
2. Walking on a treadmill with constant speed
3. Walking on a treadmill with varying speed
4. Walking at constant speed on a changing track
5. Walking at varying speed on a changing track
6. walking in a pedestrian street

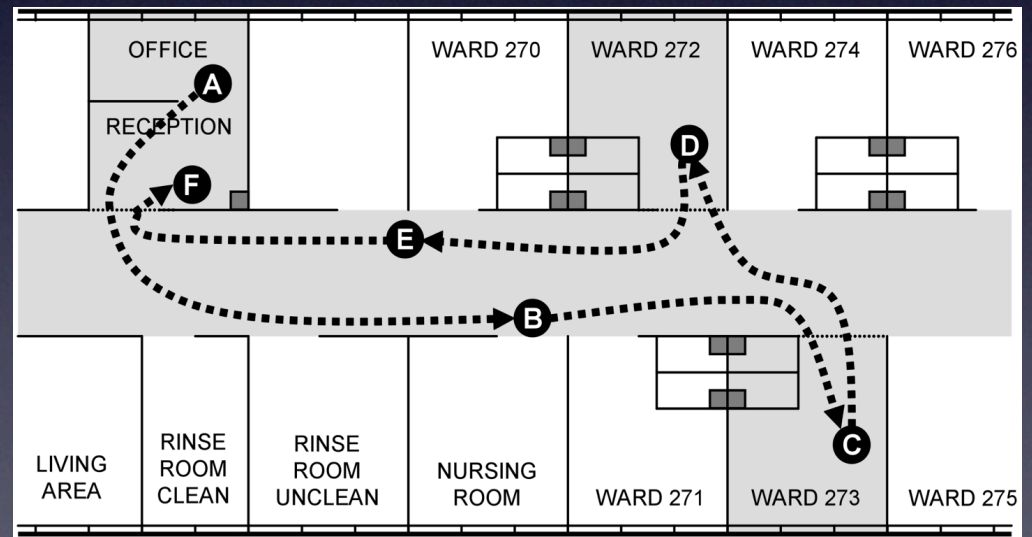
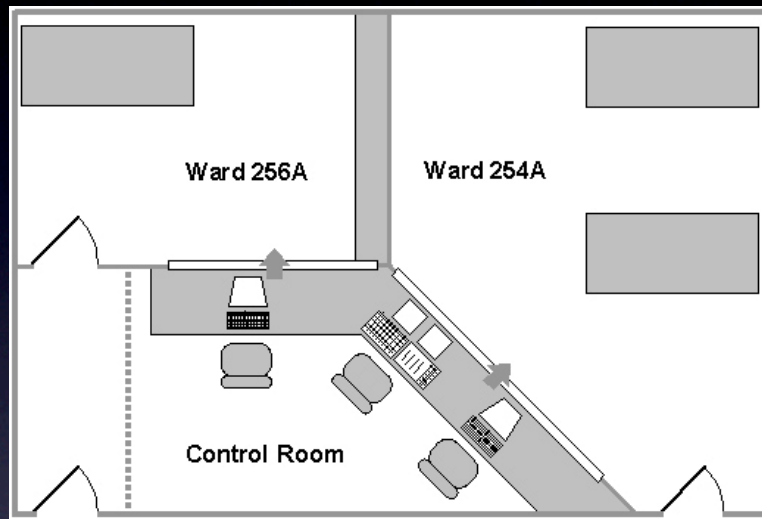
- More usability problems found on average when seated at a table
- Physical mobility in the lab triggered identification of unique interaction problems also found in the field
- Added value in relation to e.g. layout and button sizes

# Simulating the domain





# example: a hospital ward



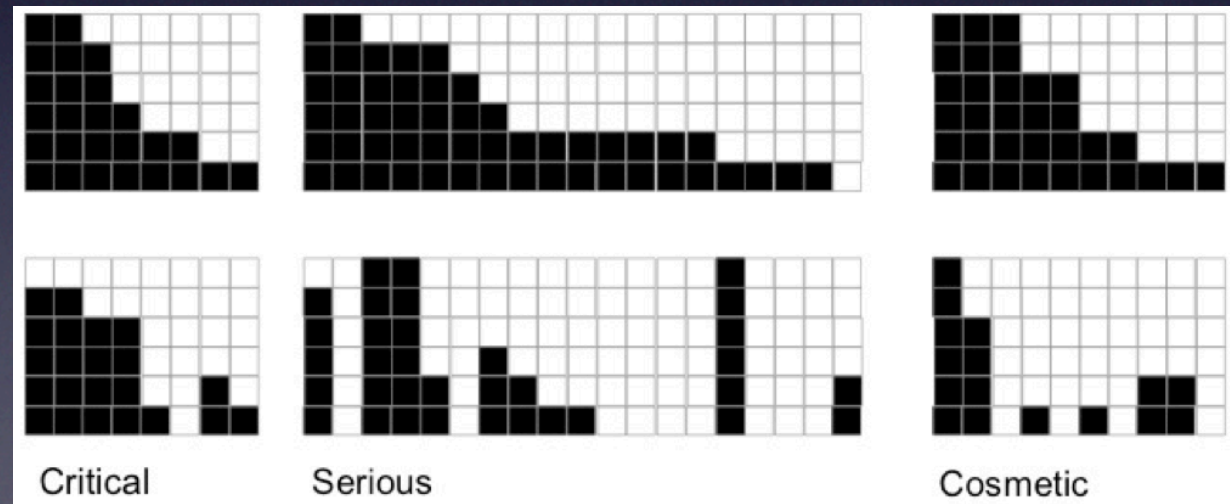


# How well did the simulation work?

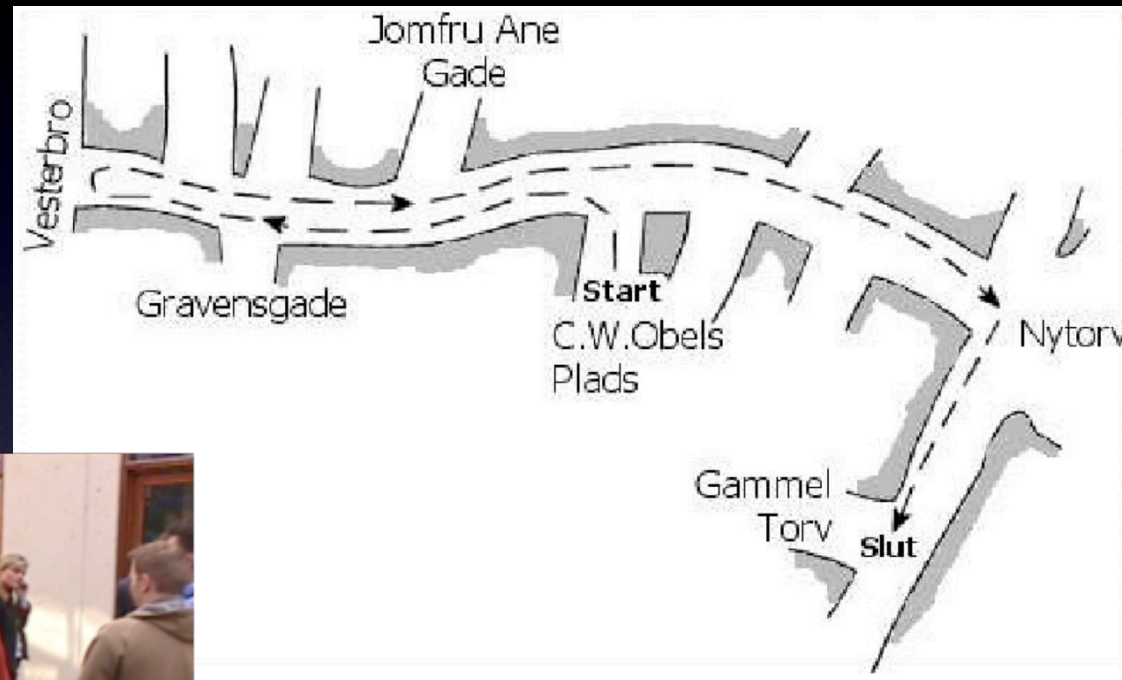
- Very well - at least not for *usability problem* identification
- However, the field provided additional information on real world *user experience*

Simulated ward

Real ward



# Studying in context



- Recorded with a camcorder
- Difficult to capture good images of screen
- The “bodyguard” effect





# Bringing the lab with you

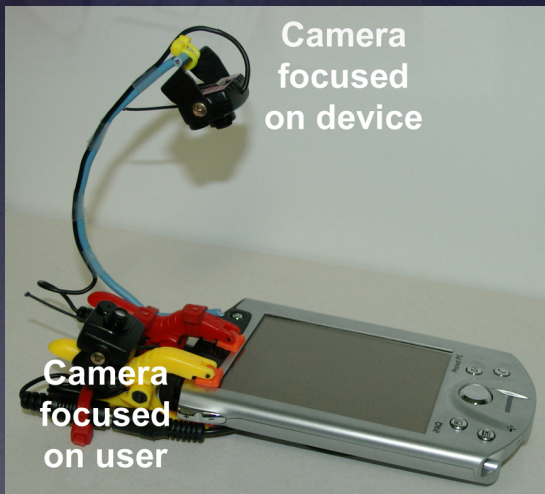




# Lab = a lot of equipment







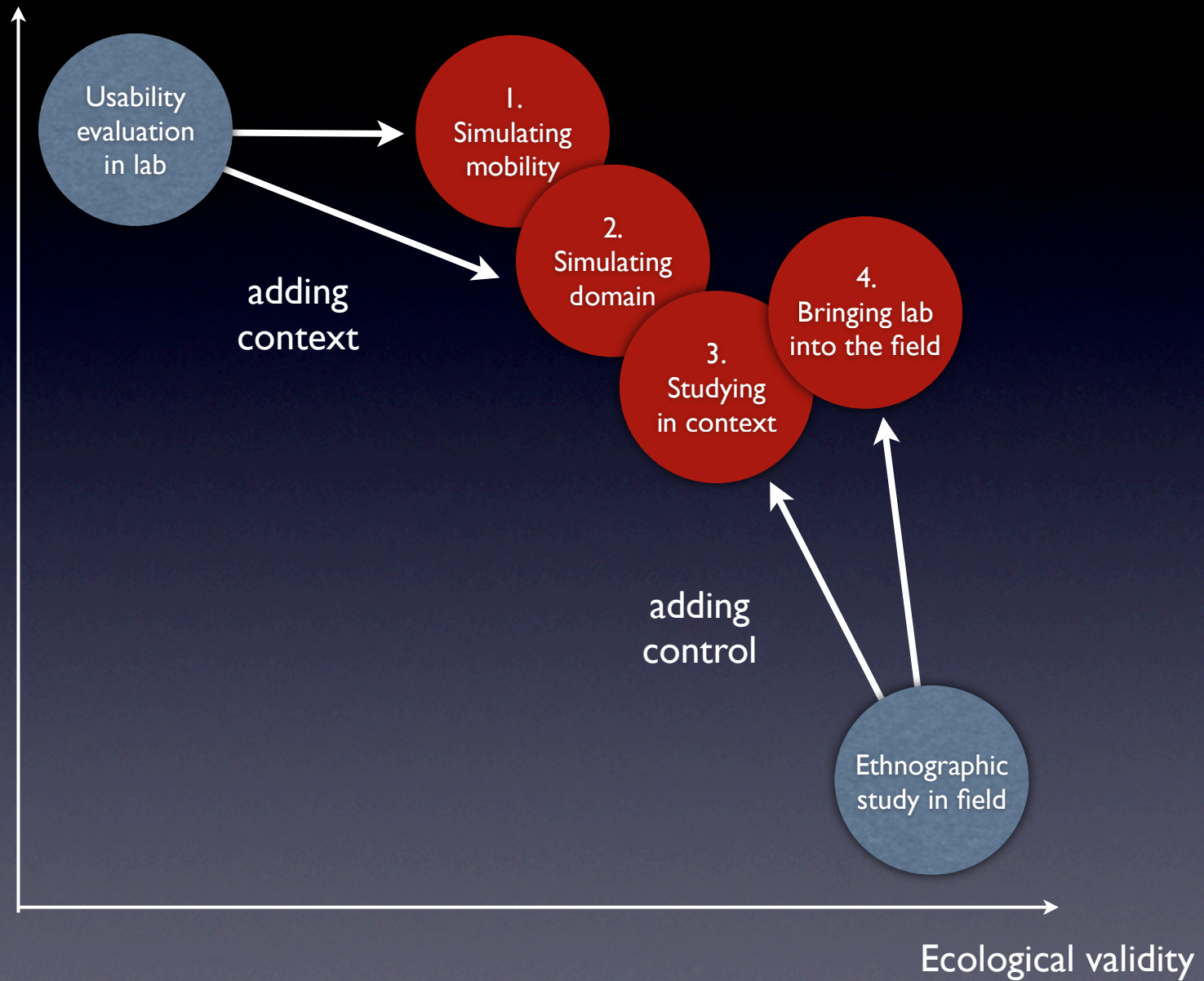


# Bringing the lab with you

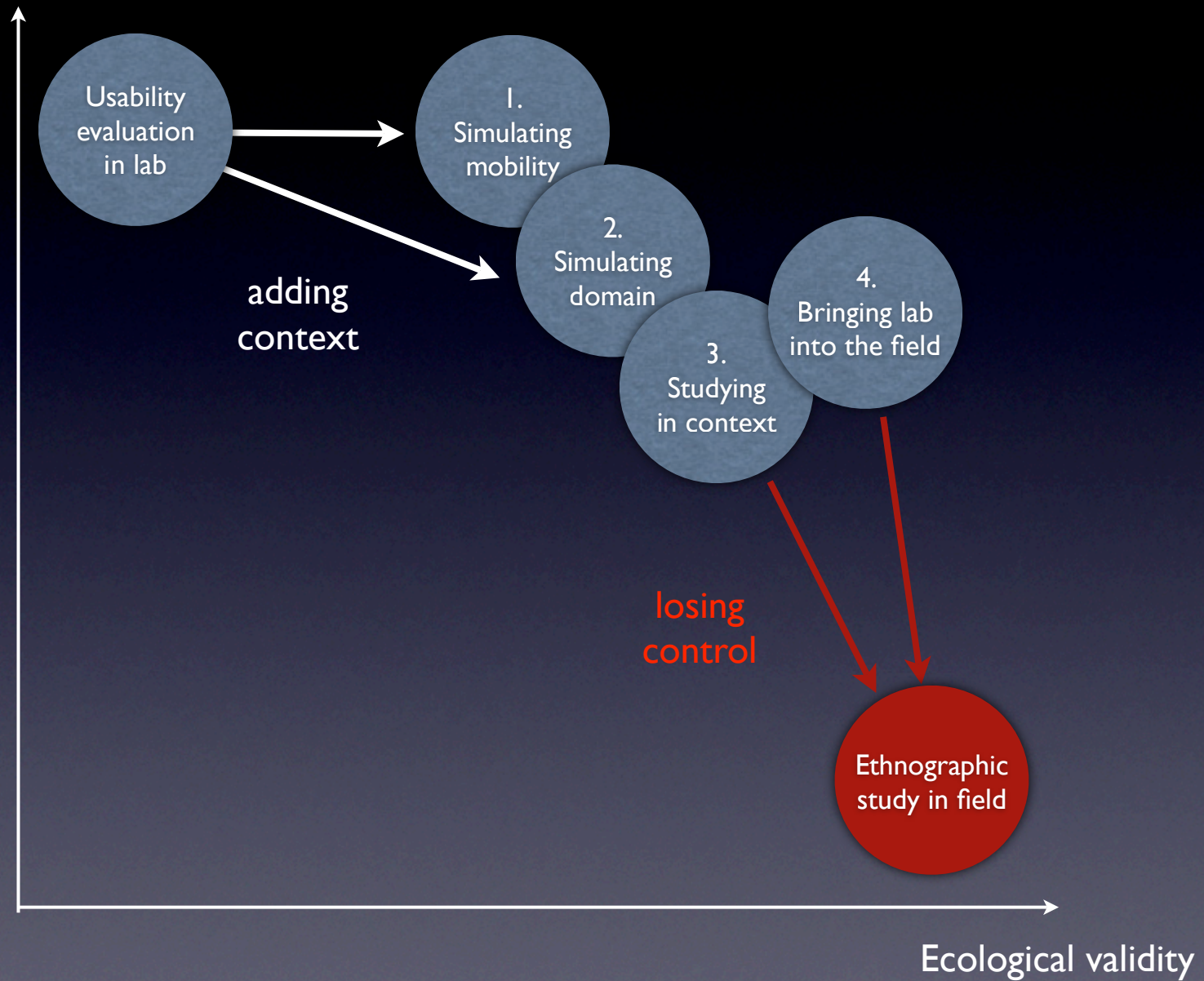
- 2 kg and measuring 18x14x25 cm
- Facilitating high-quality data collection
- Facilitating control and realism
- Still restricted to traditional “snapshot of use” methods



Control



Control



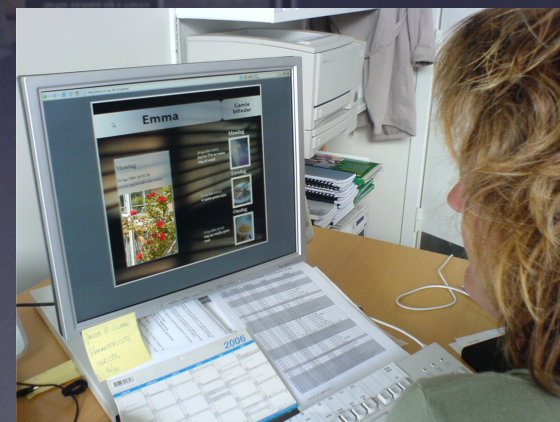
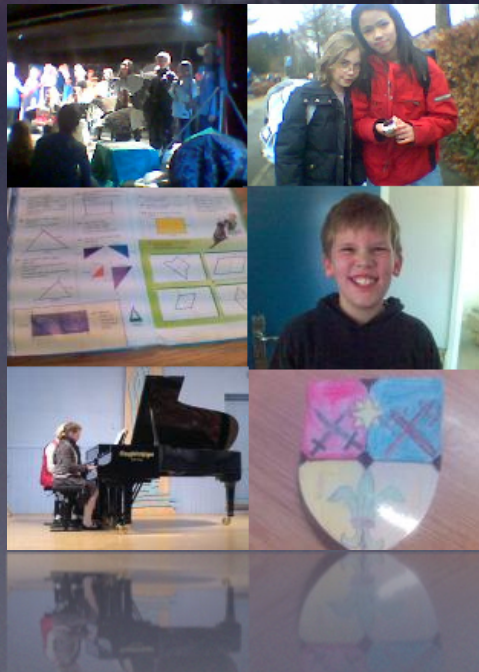


# Observation, no Task





# No observation, no task





# From Usability to User Experience

Usability

User Experience

