



# Needfinding (Exercise)

Human Computer Interaction

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Academic Year 2020/2021



POLITECNICO  
DI TORINO



# Goal

- Develop the plan for a Needfinding process in an example project
- Overview of Needfinding tools
- Plan the Observation process
- Plan the Interview process
  - Develop the Interview tool
  
- Interactive exercise – please contribute, suggest and comment!

# An example project

- We would like to SUPPORT/HELP/ENHANCE/... <target population>  
TO/WHILE/IN/... <general activity/topic>
  
- We would like to help University Students,  
studying from home, to better engage with  
their teachers and peers

# Target group

- We would like to help **University Students, studying from home**, to better engage with their teachers and peers
- International students? Or all from the same country? → Share one language, similar time zones
  - Language issue / Time zone issues
- Freshmen? → make a choice: YES Both Freshmen and Senior
- Technically well-equipped? → YES
- Which Faculty/Major/Topics? → STEM-like topics, they use designs, labs, exercises
- Age? → would not affect the activities, but in range 20... 30 approx
- Disabilities? → make a choice: considered or not? NO


# Activity

- We would like to help University Students, studying from home, to better **engage with their teachers and peers**
- Live Classes / Recorded Classes / Labs / Exercises / Homeworks / Exams / ...
- Only during official hours / Self-study or self-paced activities?
- What Media Interaction is needed (voice / text / video)
- Teachers / Peers
- B
- C

# Needfinding Recap

Design Methods – Needfinding 1

## What to do in Need Finding



The most important thing about need finding in design thinking is that we look without knowing what we are looking for. We trust that our ability to define the problem will emerge during the need finding process.

**PRINCIPLES**


- Human Centered Design (Look to users for design inspiration.)

**PURPOSE**

- Uncover Latent Needs: Gaps in Use, Usability & Meaning (Look for surprises, differences between what people say they do and what actually do.)
- Gain Empathy for Users (Discover the emotions that guide behaviors.)
- Look for Extreme Users (Users who are pushing the system may reveal needs before the mainstream.)

**PROCESS**

- Bring back Stories (specific) and Artifacts (photos, drawings quotes) that communicate your Insights.
- After the observation phase, you will gather with your team to share findings and insights. Bias toward capturing your observations in ways that are visual, sharable & evocative.
- PHOTOS  
Use photos to isolate points of interest & generate later discussion. Take as many as possible: 20 / hr is a good pace.
- SKETCHES  
Sketches are a great way to interpret a scene, to create a broad representation or to call out specific details.

**d.**   
HASO PLATTNER  
Institute of Design at Stanford

- <https://hci.stanford.edu/courses/dsummer/handouts/NeedFinding.pdf>

# Planning an Observation

- What ->>> ???
- Who: a group (3-4) of Freshmen and a group (3-4) of Senior students
- Where: in their house? Observe on-line? With a wide-view camera
- When: some in live activities, some in asynchronous activities
- How: Non-intrusive external observation, see what you do, and see your screen + chat with each of them about the reasons why you did or did not do some actions

# Planning an Interview

- To whom? 1-2 Freshmen and 1-2 Seniors (from the Observation Group)
- **Direct 1:1 Interview** vs. Focus Group vs. Survey
- General Structure
- Questions
  - How many?
  - Which ones?
- Interacting
  - Follow-ups?
- Recording
  - Paper / Audio / Video / Pictures ?



# Interview Structure

- Introductions, clarify the goal, get permissions, anonymous results
  - There are no right or wrong answers
- .
- .
- .
- What question didn't we ask you?
- Gather statistical data (gender, age, profession, enrollment year, ...)
- Appreciation

# Questions (examples)

- How is your typical day for your studies?
- What do you appreciate about the on-line study and what not?
  - Do you feel more comfortable with activities synchronous with the teacher or activities in your time / with peers?
  - How do you interact with the teacher (e.g., for questions?)
  - How do you interact with the peers (e.g., work groups, study together,... )
- Which problems have you encountered (if any) with the on-line tools?
- Can you tell me some examples/stories about study problems due to the on-line issue? Or some good stories?
- What are the study activities that you find most / less useful? What tools are you using?
  - Tell me one word about: Good / Bad/ Tools about the different moments of study (lecture, assignments, ...)
  - Do you want to add more? Among all the good parts, which is the best? Among the bad parts, which is the worse?
- Tell me more about this. Can you give me some examples? How does this make you feel?
- You are at the first year, what are you missing most? // You have years of experience, how did they help you?
  
- NO: How would you fix this?