

2

Mon 8 Mar

09:15
-
10:30

Open lecture: "Design for policy" Jocelyn Bailey

Break

10:45
-
11:30

Lecture: "Problem finding" Taneli Heinonen

Break

11:40
-
12:00

Group Reflections

Essay topic and standpoint mapping workshop

Go to location? Lunch Break

13:00
-
15:00

Supergroup – Stakeholder Round table

Break

15:30
-
17:00

A5 Research Plan

**How to find problems worth
solving?**



Project 1 - Pilot project for Personal Budgeting
Model and Mobility Services



Project 3 - Strategy for expatriate Finns



Project 2 - Reducing the carbon footprint of
procurement services.

Goals + institutions

What other viewpoints can we have?



PEOPLE





PRACTICE



STRUCTURE

TOTAL FERTILITY RATE (TFR)

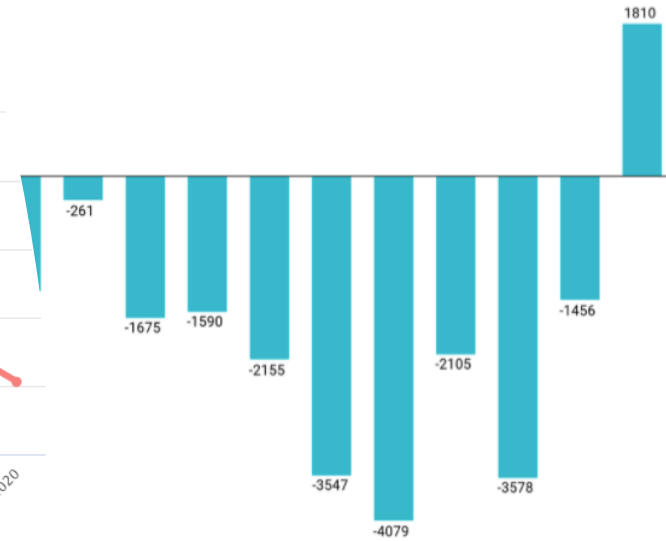
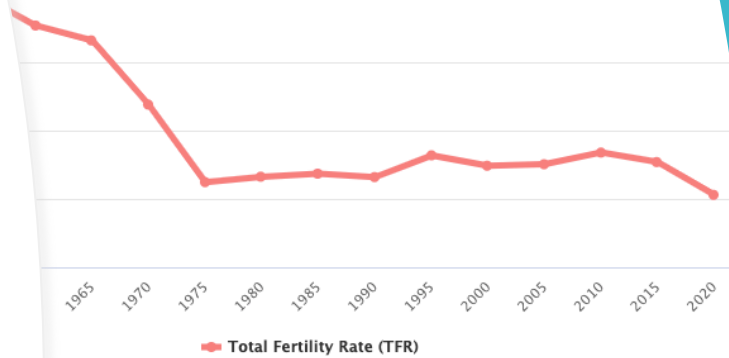
1.5

(Live Births per Woman, 2020)

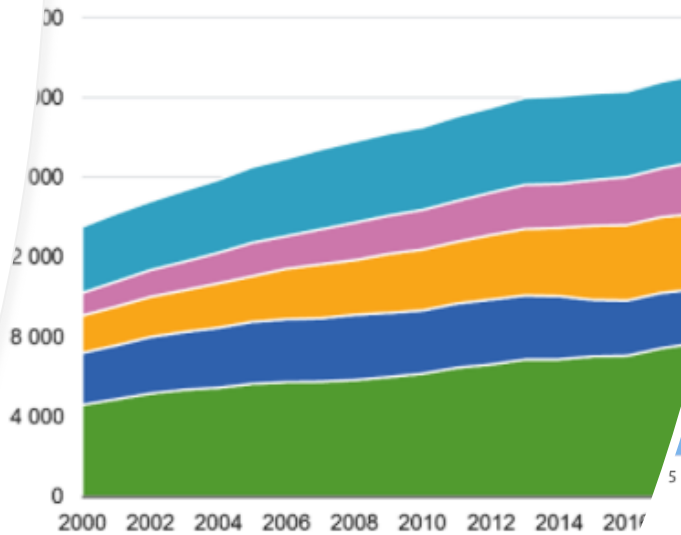
2010-2020

Number of people per year

Total Fertility Rate in Finland, 1955-Present



Expenditure by function in 2000-2018, in 2018 prices, € million

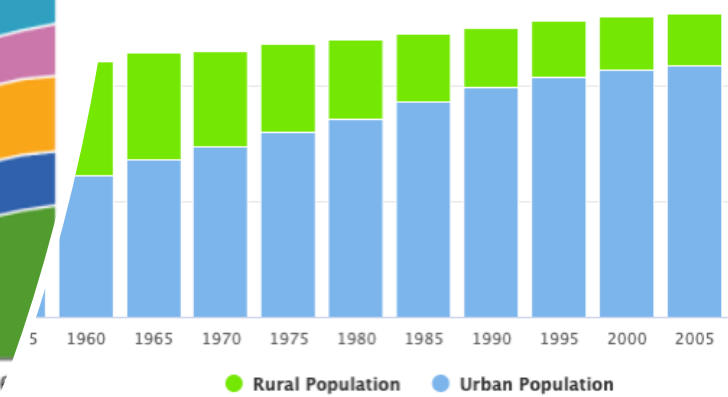


2011 2012 2013 2014 2015 2016 2017 2018 2019 2020*

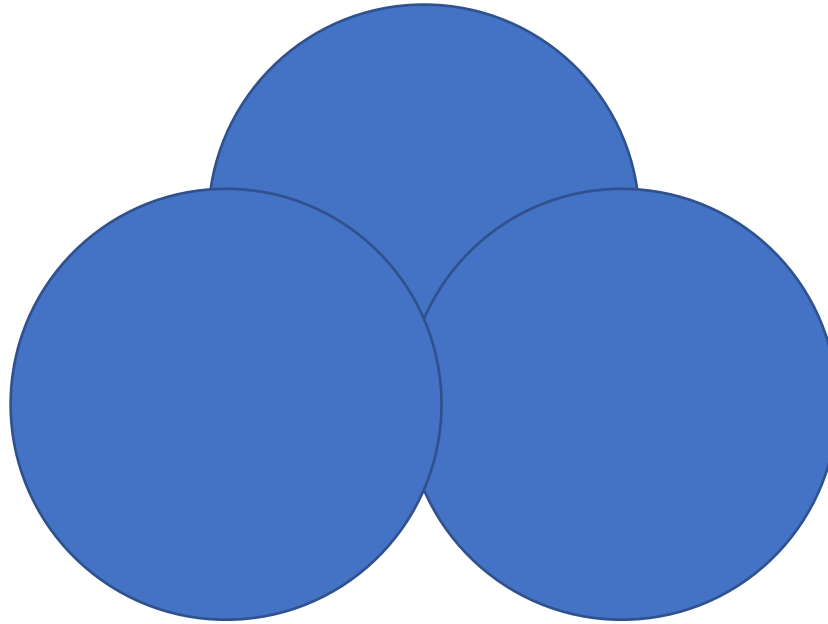
Urban Population

The population of Finland is **urban** (4,751,986 people in 2019)

Finland Urban vs. Rural Population from 1955 to 2020



● Rural Population ● Urban Population



PEOPLE

- Who are the people we need to understand?
- What is it like being them?
- How is this policy/service/problem/solution part of their life?

PRACTICE

- What are the relevant practices people engage in?
- How are these practices experienced?
- What is the role of policy/service/product in these practices?

STRUCTURE

- What are the relevant social and cultural structures in our context?
- How are they changing?
- How are the changes affecting people and practices?

How to Study These?



Neil deGrasse Tyson

@neiltyson

Seuraa



In science, when human behavior enters the equation, things go nonlinear. That's why Physics is easy and Sociology is hard.

Käännä twiitti

16.03 - 5. helmik. 2016

14 124 uudelleentwiittausta 23 336 tykkäystä



695



14 t.



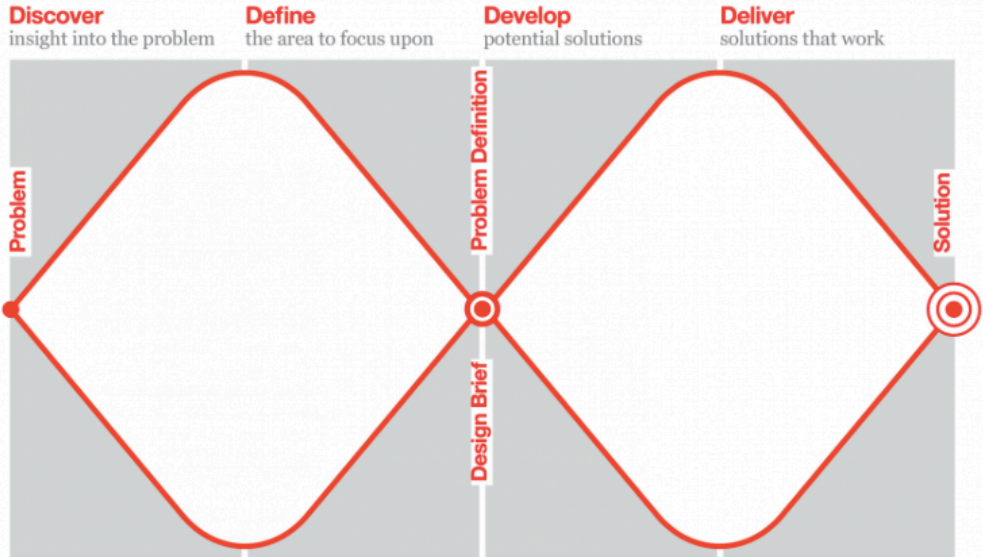
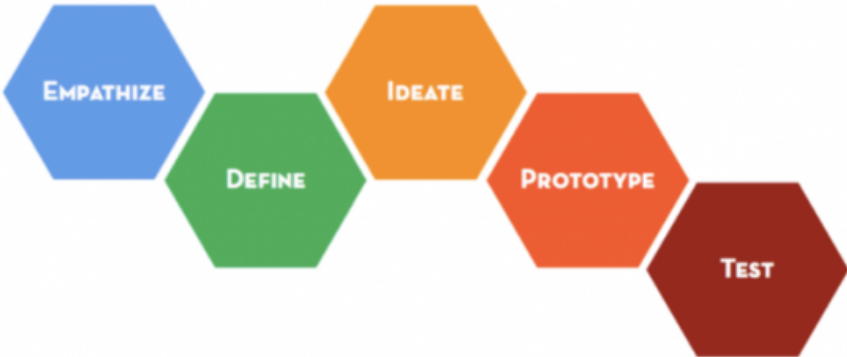
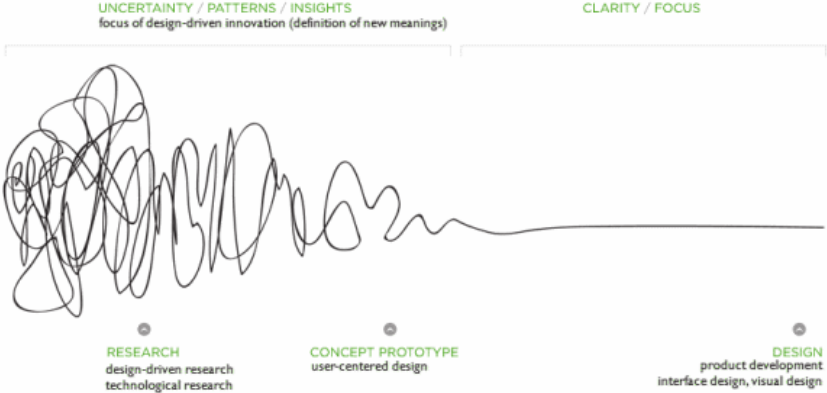
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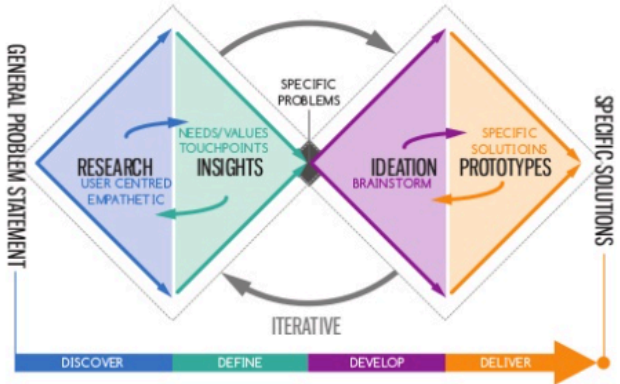
Traditional academic research vs. applied research in DfG

	Academic	Applied
Value	Absolute value in the accumulation of knowledge itself	Functional value in order to achieve something
Time	Long processes	Limited projects and resources
Use of methods	Chosen methodological frameworks as discourses to participate in	Choosing and mixing methods according to the task at hand
Use of theories	Using chosen theories to make sense of the research topic and to connect to a theoretical discussion	Using a mix of concepts and theories as ideas that serve as tools to make sense of data

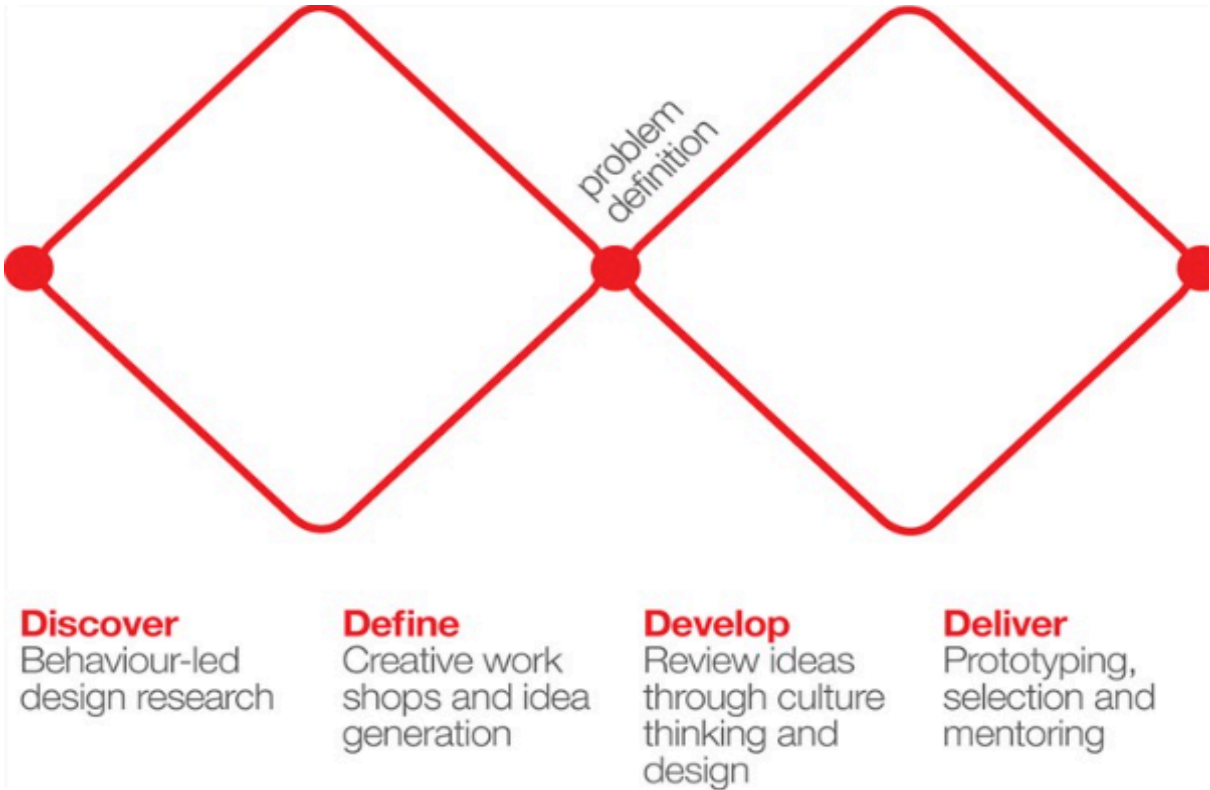
Problem-finding in design processes



DOUBLE DIAMOND PROCESS



Aim of the research is to help define right (fruitful) problems



Double diamond model of Design Council UK

Aim for access and informed consent

INFORMED CONSENT: PARTICIPATION IN THE DfG study

DESCRIPTION

The purpose of this study is to produce scientific knowledge about how design can contribute to helping government in sustainability transformation. The participation is voluntary. Participation comprises the data collected by students during DfG being used also for academic research and publishing purposes according to the ORSI project publication plan: <https://www.ecowelfare.fi/en/> /results. All data collected will be kept confidential, and it will be used in articles so that the identity of the participants will remain anonymous, according to the Aalto research guidelines: <https://www.aalto.fi/en/services/research-ethics-and-research-integrity>

INFORMED CONSENT

I understand that all data will be kept confidential, and the identity of the subjects will remain anonymous. If I wish, I can check and comment the materials intended for publication based on my participation upon request, before their publication. In case I have any questions, I can contact the interviewee using the below information. Participation is voluntary and I can cancel it at any point by sending a message to: [Sanna Tiilikainen](mailto:Sanna.Tiilikainen@aalto.fi) Sanna.tiilikainen@aalto.fi, Tel: +358504355381

I agree to participate in the above study by replying [this mails](#) with a message "I agree", printing out and signing this form and sending it to: sanna.tiilikainen@aalto.fi, or giving my consent verbally.

Date: 29.1.2021

Signature, print name



What about methods?

Disclaimer on method-naming:

- It is about differentiation and legitimation
- In practice research methods are tools for an end – choose a tool based on your aim

Watch

- See what is being done in practice
- Immerse yourself in the context

Observations



Desktop research



Listen

- Dig deeper by asking
- Learn the story
- Understand their thought process

Interviews



Group discussions



Work

- Get viewpoints
- Engage in creating together
- Test how something works

Co-creation workshops



Prototyping workshops



Play

- Step out of institutional roles
- View things from different perspectives
- Use imagination

Design probes



Design games



Examples of methods from past DfG courses

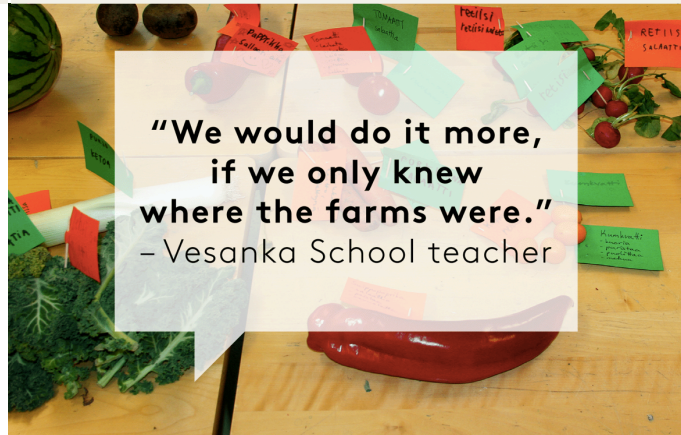
Desktop for statistics

The annual cost of obesity
in Finland is

€ 330 M

– National Institute of Health, 2011

Interviews



Co-creation workshops



Examples of methods from past DfG courses

Participant observation



DfG 2015. Primary Producers team. Bice Lee Herold, Eevi Pauliina Saarikoski, Panu Matias Autio, Richard Eric Birger Hylertstedt

Interviews of extreme users

RESEARCH

“The paperwork we have to do has nothing to do with our real work and the subsidies are almost not worth the headache.”

-BIODYNAMIC FARMER

Prototyping

CONCEPT

www.merkkaa.fi/101A MAATALOMAKE 2015 Lomake 2015

Yrityksen nimi:

Tällä lomakkeella pidämme kirjaa Suomen maatilasta. Tietoa lomake maatalon sijainnista maanvalmistuksen osuudesta viimeistään 15.5.2015, sen maatalon nykyisen tilan ja tilanmuutosten osuudesta ja tilanmuutosten osuudesta ja tilanmuutosten osuudesta. Hyöt löydät kutsukäyttäjät tai muuta pyydettyä osalle käyttäjien muuttajat.

1. MAATILAN KOKOAVAT PERUSTIEDOT

Maatalon nimi: Tilan nimi:

Tällä lomakkeella ilmoitetaan tilanmuutosten osuudesta kyllä ei ei tiedä ei

Maatalon sijainti:

2. TÄKÄNTÄMÄN EHDOTTELO

Tällä lomakkeella automaattisesti ("sijainti") kyllä ei

3. MAANVALMISTUKSEN EHDOTTELO Tiedot eivät ole muuttaneet

Maanvalmistus	01.4.2015	Maanvalmistus	01.4.2015
Määrä	ha	Määrä	ha
Muutokset		Muutokset	
Työ ja muutokset		Muutokset	

4. TILAN 1.4.2015 OLETTAVAT KOTILÄMMIT

Ilmoita lasku maatilalla 1.4.2015 olevat kotilämmitykset. Merkitse mahdollinen tuotantotarkoitus. Tällöin tilanmuutokset ei tule laskuun.

tyyppi	tilanmuutokset	tyyppi	tilanmuutokset
Kaasut	<input type="checkbox"/>	Öljyt	<input type="checkbox"/>
Sähkö	<input type="checkbox"/>	Öljy	<input type="checkbox"/>
Sähkö	<input type="checkbox"/>	Öljy	<input type="checkbox"/>
Sähkö	<input type="checkbox"/>	Öljy	<input type="checkbox"/>
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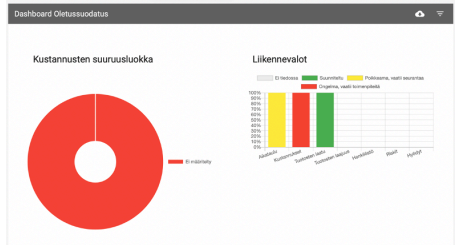
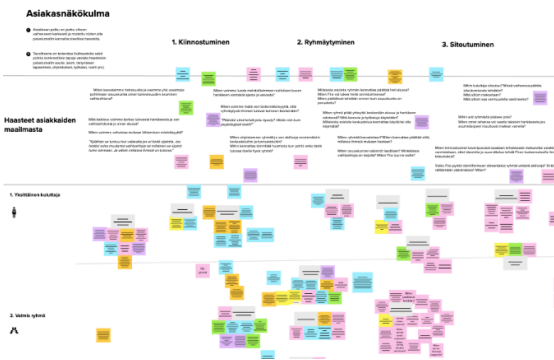
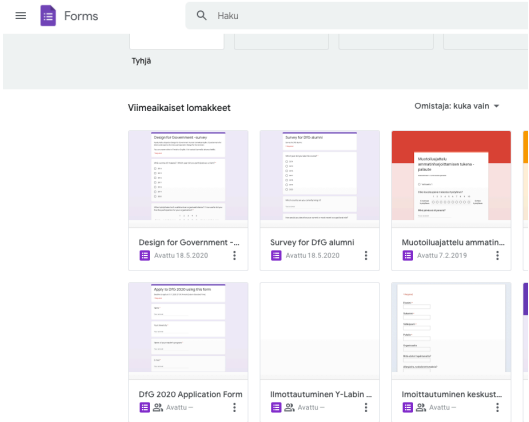
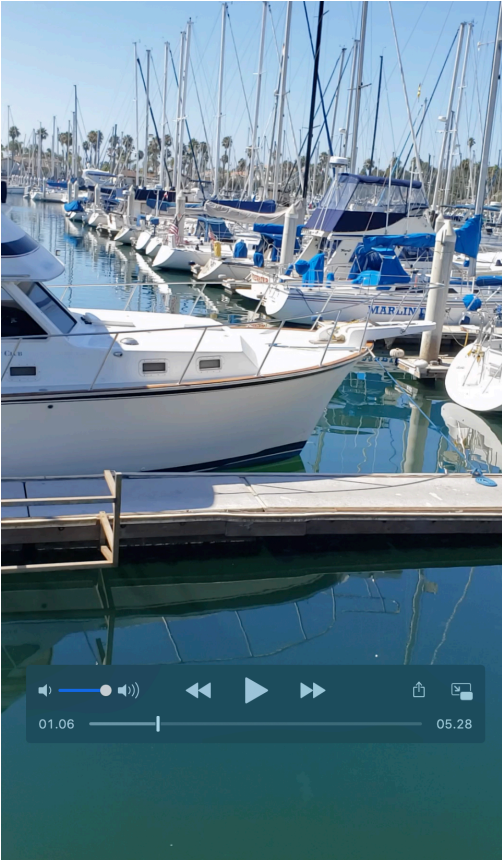
5. ALLEKIRJOITUS

Tilastointi 2015 lomakkeella olevat tiedot vahvistetaan.

Tilasto on omissa.

Maatalon tilinumeron vahvistaminen on mahdollista verkkosivustolla.

Examples of methods in the pandemic



"Toi liikennevalojakauma näyttää hyvältä. Sitä ei ole meidän omassa työkalussa. Missähän nuo dashboardit on omalla koneella?"

"Hyvä jos voi saada suoraan käyttökelpoisia visualisointeja omiin esityksiin ja raportteihin."

How to set up an interview?

Recruitment – find the right people

Portigal Consulting

www.portigal.com

2. Do you own a portable MP3 player that you use regularly?

Yes
No **DISMISS**

2a.. If yes, how long have you owned a portable MP3 player?

Less than 3 months **DISMISS**
Between 3 months and 1 year
More than 1 year

2b. If yes, how many hours per week do you estimate you use your portable MP3 player?

IF < 5 THEN DISMISS

3. Do you listen to music on a computer?

Yes
No **DISMISS**

3a. If yes, how often?

Daily
Weekly

Steve Portigal, 2013

Brief – explain what and how of the interview

- What will we discuss, in some cases also what not
- How long will it take
- What will it be like
- What if you need to take a break
- What kind of information are we after
- Why we want to talk to you
- What kind of a project is this part of
- How their words and their name will be referred to, what is the level of anonymity
- Make sure you have consent on your research and documentation

Using an interview guide vs. defined script



- Following a strictly defined set of questions vs. themes you wish to cover.
- Translate your research questions into something that can be asked in a discussion. Typically, you start from more open-ended question and consider possible follow-ups.
- Plan well and use the guide as a tool that supports you but doesn't restrict you. You don't have to go word-by-word.
- Think about your timing – how much for different themes and sections.
- If you are doing exercises, such as card sorting or map drawing, have everything you need prepared beforehand.

5 x Why?

- Often used for root-cause analysis in organizational settings, but you can also apply it in an interview setting.
 - Helps you discover how actions, beliefs and thoughts ladder. Consider also 5 x “in order to”
-
- The vehicle will not start. (the problem)
 1. **Why?** - The battery is dead. (First why)
 2. **Why?** - The alternator is not functioning. (Second why)
 3. **Why?** - The alternator belt has broken. (Third why)
 4. **Why?** - The alternator belt was well beyond its useful service life and not replaced. (Fourth why)
 5. **Why?** - The vehicle was not maintained according to the recommended service schedule. (Fifth why, a root cause)^[2]

Other tips on getting the most out of an interview:

- Think about where you will have the interview and how you will document it. Real contexts usually provide rich discussions. When remote, make use of cameras.
- Leave your worldview behind the door. Embrace and learn from theirs.
- Listen to, by asking questions and body language – don't be afraid of silence.
- Focus on the respondent, don't start sharing too much of your own experiences.
- Feel free to ask stupid and simple questions – you are there to learn about their experience and views.
- Try to ask open questions that provide stories instead of closed “yes” or “no” answers.
- Don't lead the respondent e.g. *“Why do you think it is important for high school students to learn about bio-diversity?”*
- Think about the order in which you're asking your questions, make it easy in the beginning and allow them to relax.
- Plan your interview but be prepared to discover emerging themes and new ways to frame the problem you are working on.

Different types of interviews: focus groups or group discussions – study the discussion on a specific topic



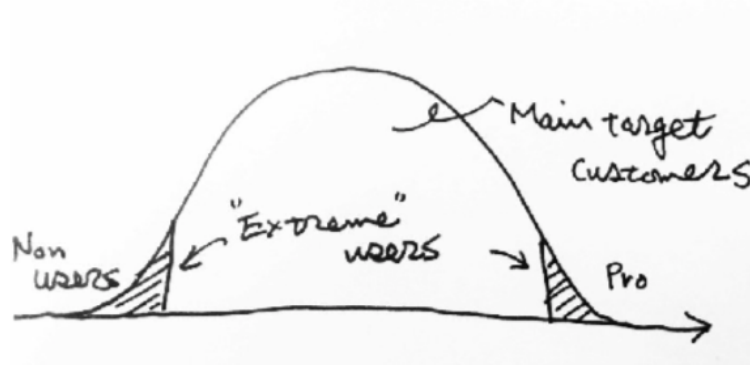
Example from: guardian.com Taking time out to listen: the benefits of focus groups.

- Often used for concept and product testing in different phases of the development process.
- Well-planned discussion moderated by a researcher whose goal is to tease out useful answers and engage all participants into the discussion.
- Typically 6-8 people in a group for 1-2 hours.
- Allows you to study how ideas, topics or concepts are received in a group. What kind of conflicts and consensus they evoke.

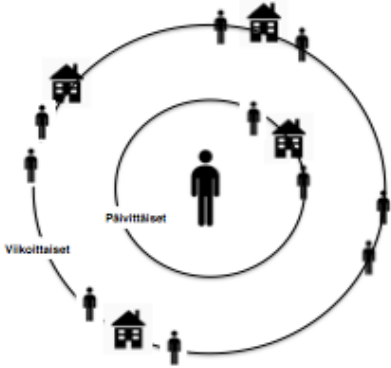
Different types of interviews: extreme users



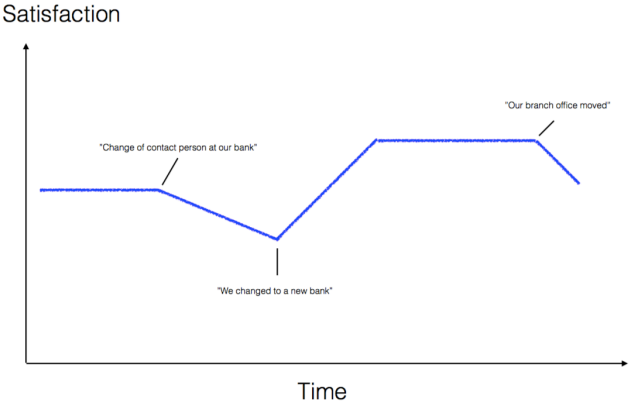
- Consider different extreme types of users that really stretch some qualities of a service or product
- “If it works for the extreme user it works for everyone”
- Very skilled and experienced vs. inexperienced users



Different types of interviews: drawing exercises



- Visualizing while discussing helps stick to concrete experiences, and tell stories around them.
- Drawing as an activity allows the respondent to take a step back from their own life and reflect.
- Drawing timelines and sociograms provides comparable visual data.



Different types of interviews: synchronous vs. asynchronous



- Asynchronous discussions can be a way to give people time to reflect their answers.
- You can develop the discussion and take time to clarify your thoughts in the written form.
- Might be easier for some people with hectic schedules.
- It may be challenging to keep people engaged in asynchronous discussion for longer time periods.

Different types of interviews: card sorting exercises



Portugal 2013.

- Visual aids that evoke discussion through the exercise of arranging cards or coming up with thoughts and stories based on them.
- You can use visual cues of ideas, sort brands and images related to them, use pictures of places, times of the day etc.
- Helps you see how people organize and relate things to each other and what kind of preferences they have.

Probes and diary studies help you gather qualitative self-reported data over time

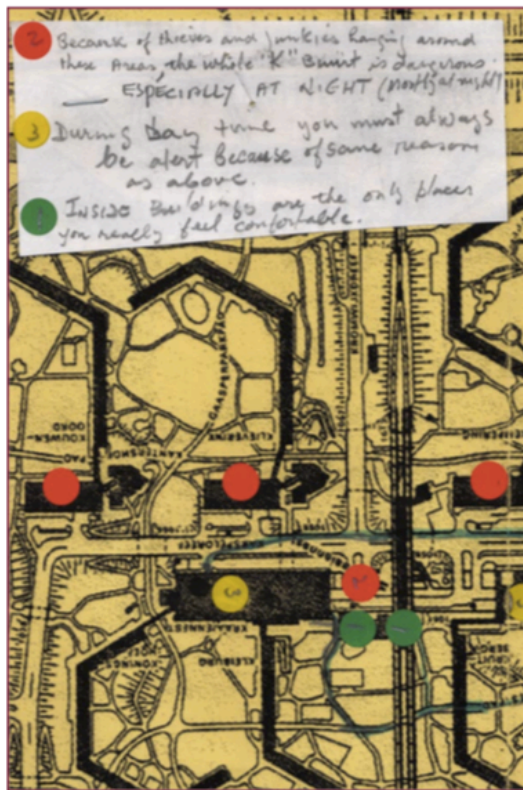


Figure 7. A returned map showing zones of safety and fear in the Bijlmer.



Figure 1. A cultural probe package.

- Packages with tasks and artifacts given to research participants. They record and deliver the tasks to researchers.
- Typically, disposable cameras, diaries, stories, maps etc.
- Allows the gathering of data over time.
- Requires good briefing.
- Recruitment is crucial to get right kind of people who are able to self-report with your support.
- Analyzing the probes and conducting a follow-up interview with the respondents.
- Originally introduced by Gaver, Dunne & Precenti on a design research project of elderly people in 3 different EU countries.

Observation without interfering vs. participant observation

Fly on the wall



- Observe and record
- Beware of the illusion of objectivity

Participant observation



TUTKIMUS

Jussi Perälä

"Miksi lehmät pitää tappaa?"


Etnografinen tutkimus 2000-luvun alun huumemarkkinoista Helsingissä


- Active learner who engages with the field
- Reflection on biases, but no value judgments


Try out a service from the perspective of a specific role


Processing Time Checker


Check the processing time of your application
Select the application you submitted.

 Residence permit

 EU registration


 Citizenship

 Travel document

 Asylum

[Clear selections](#)

Services and instructions

Application Finder → The Application Finder helps you find the right application form.	Requests and certificates → The Finnish Immigration Service may, at your request, issue certificates on matters that concern you.	Instructions → The page of each application lists the requirements for that application and the documents you need to attach to it.
Immigration Information Centre →	Telephone service →	Migration Library  Kamu chatbot

- You can do this yourself or ask someone to try out and record their experience.
- Can be used to search for moment-of-truths, potential problems in how the service is perceived etc.
- Consider connecting this to other methods as part interviews or group discussions for example.

How to plan?

A5 Research Plan

Research goals (1/4)

Goals of your project

What are your commissioner's goals? Why does your commissioner need these goals met?

Identify key stakeholder roles (both within and outside the commissioning organizations)

Who do you need to learn from? Who will be important for framing the problem space?

Research questions:

Frame the learning goals, focus and scope of your research into 1-2 research questions.

1....

2....

Research methods (2/4)

Desktop research:

- Information, documents and reports you will study
- Organizations and websites to study
- Hours you plan to spend and roles within team

Research methods (3/4)

Fieldwork activities (fill in the table below):

- Stakeholder group: What are the key stakeholder groups you will interview? (e.g. end-user)
- Profile: What are the specific needs/behaviours you want to learn form (e.g. working young adults commuters?)
- Number of research participants: How many form this group you'd like to interview?
- Research methods: What kind of research methods you will use? (e.g. semi-structured interviews 45 min.)
- Any specific requirements?: What kind of activities or environments you need to observe? How will you do this?
- Team members: Who will conduct the interview? Can it be conducted with supergroup members ?
- NOTE: you can add (TBD) or (TBC) if you are unsure about certain details at this point.

Example:

Stakeholder group	Profile	Number of research participants	Research method(s)	Any specific requirements?	Recruitment status	Team members group/supergroup	Date to conduct interview
<i>Social workers</i>	<i>Social workers working at Kela 'x service'</i>	<i>2</i>	<i>45 min. in context interview + observations</i>	<i>Remote connection via Teams. Record meeting with Teams</i>	<i>Contacted. Contacts provided by Marjukka (partner)</i>	<i>2 ppl, one from group 1A and one from 1B</i>	<i>10.03 at 10am</i>

Research documentation (4/4)

Documentation:

- *How will you capture and record your research? (consider audio, video, formats for notes, photos etc.)*
- *How will you share the data within your team and supergroup?*

Analysis:

- *How and when will you analyze the data? (you will be given tools and time to do this in the class, but reserve face-to-face time besides class, also be prepared to revise your analysis after comments from mid-review)*

**Supporting exercises to
consider**

Consider a purpose statement for your research

The purpose of this study is to
[explore/describe/discover/understand/develop] the [phenomenon]
in/at [research site/field].

For example:

The purpose of this study is to explore opportunities for secondary schools to address climate anxiety in their curriculum and counseling.

- Provides guidance for research and setting of research questions
- Helps in taking the research to a more concrete empirical level

Write your assumptions and hypotheses down and put them in a bucket



“How do we know that we are not biased in our analysis?”

->

“What kind of thoughts, roles and relations affect our biases?”

Discuss what is known and what is not

Known unknowns
(identified factors to study or measure)

Unknown unknowns
(things we don't know will be recognized as important)

Known knowns
(the world as understood and measured)

Unknown knowns
(things we recognize, but don't know how or why behind them)

- Gov students – move to workshop
Zoom and re-join for round table
- Others – pause and reflect
- After the roundtable: build the first version of your research plan
- Comments for research plans to fellow teams (10.3.)
- Blog 1 (12.3.)

