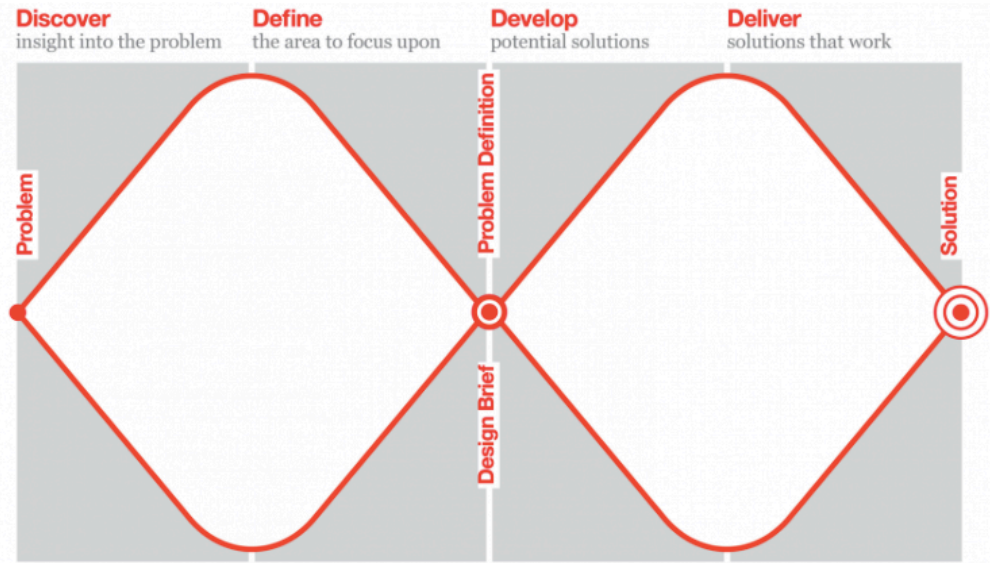
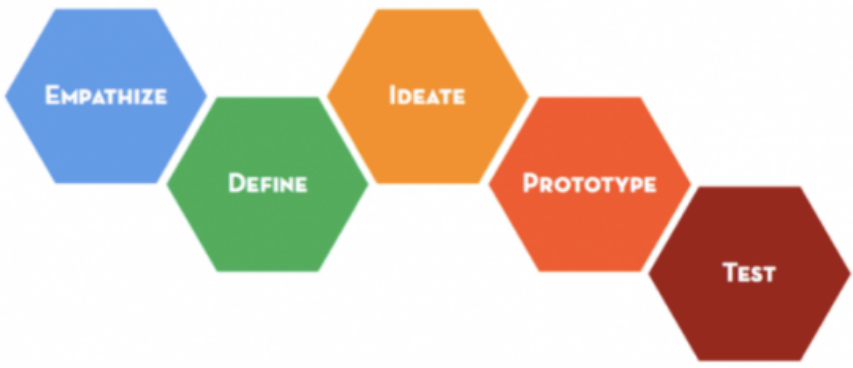
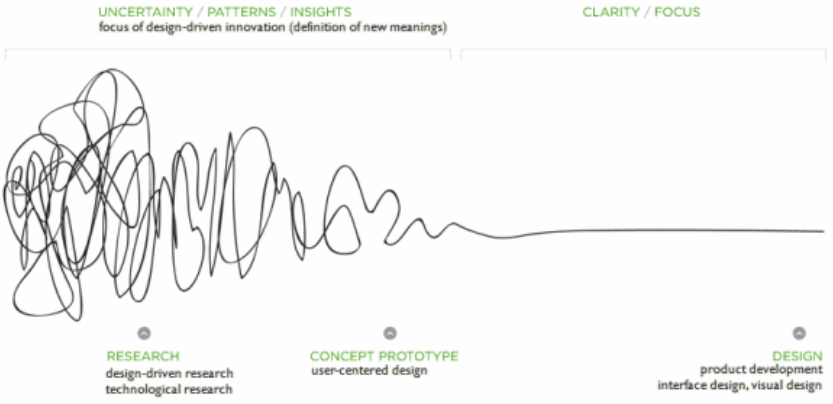


Methods of Problem-Finding in Design for Government

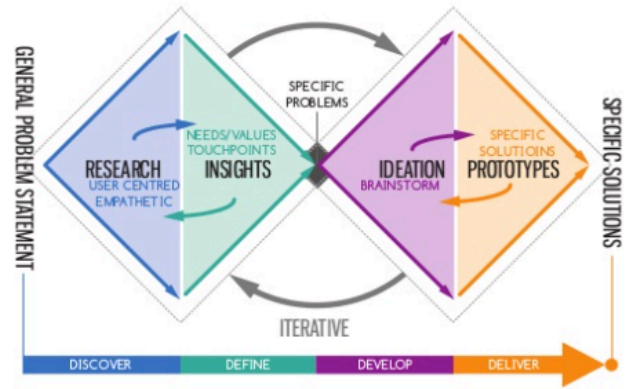
Differences of traditional academic and applied research in DfG

	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 of chosen theories to make sense of the research topic	Using a mix of concepts and theories as ideas that serve as tools to make sense of data

Problem-finding in design processes

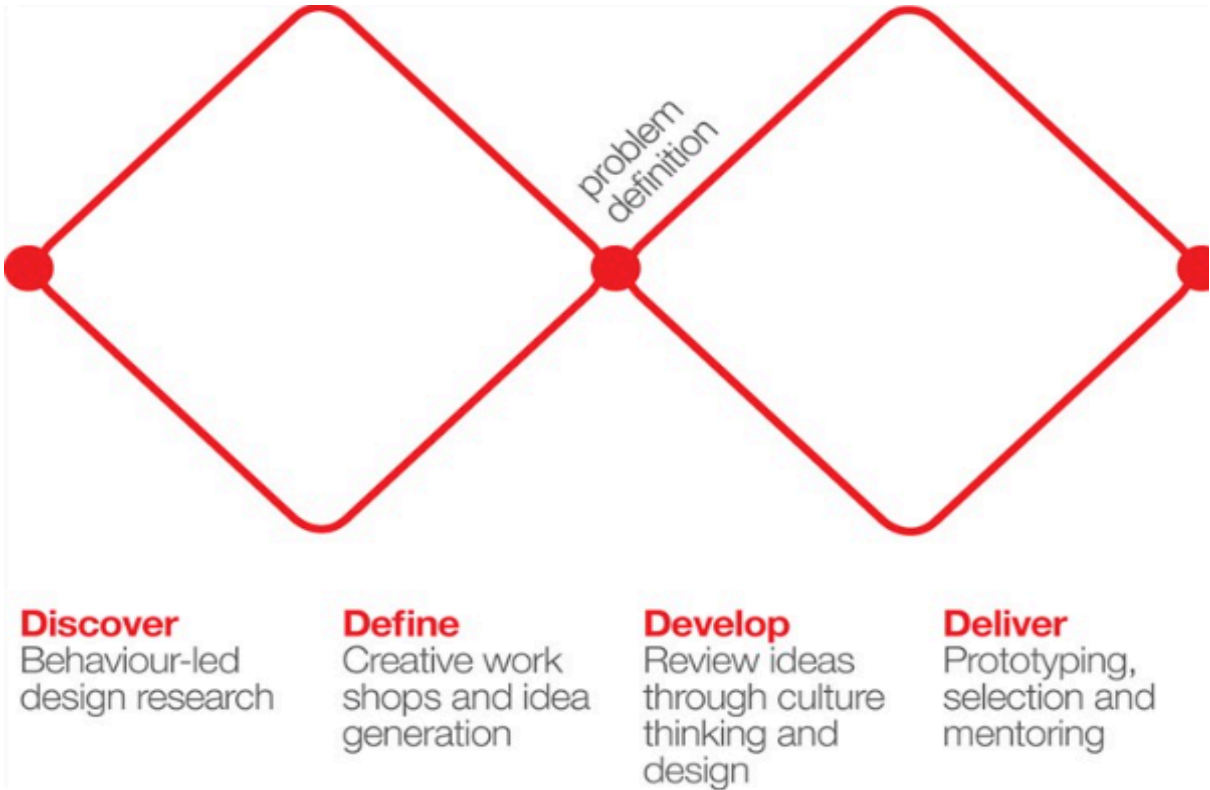


DOUBLE DIAMOND PROCESS



Service Design Double Diamond Process by Kaitlin Chole licensed under a Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License. Based on a work of <http://designjournal.org.uk>. Permissions beyond the scope of this license may be available at <http://creativecommons.org>. **Service Design Vancouver**

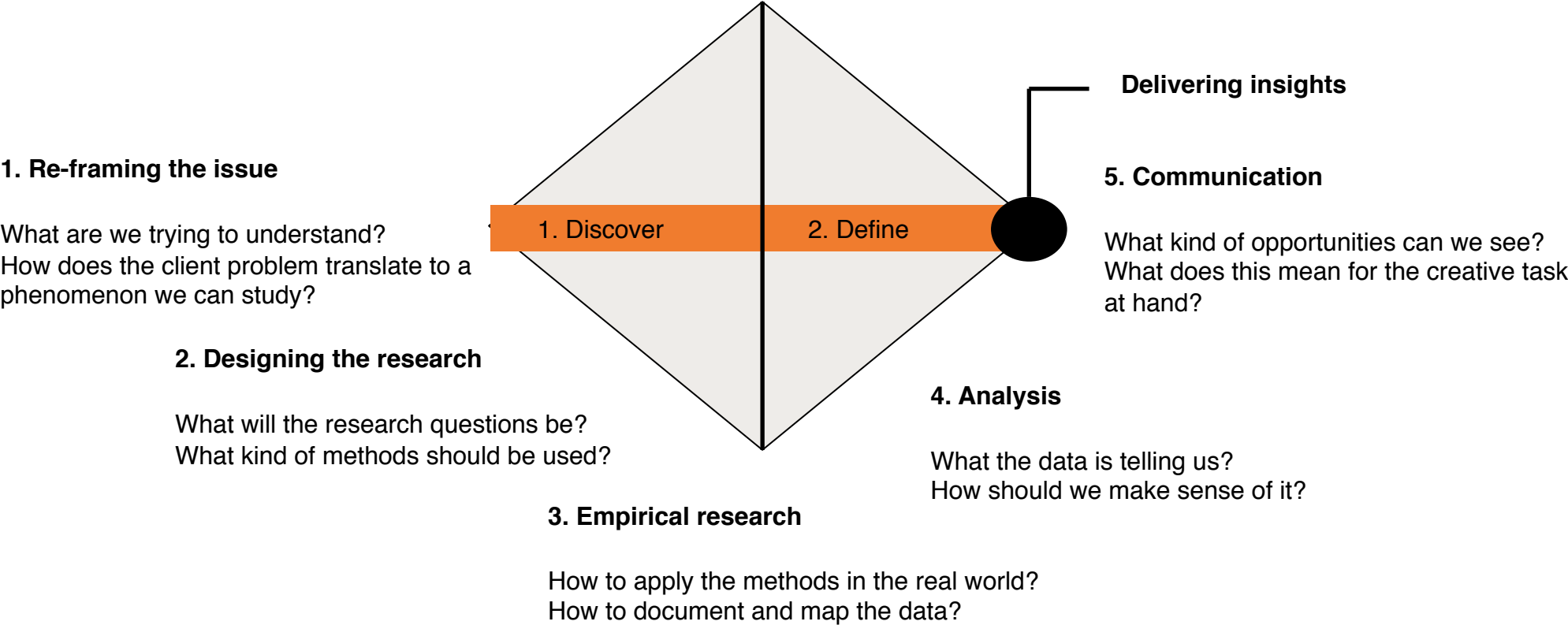
Aim of the research is to help define right (fruitful) problems



Double diamond model of Design Council UK

Analytical approach fuels the creative process

Five stages:



Starting Point

Different types of problems require different types of thinking

Three types of problems – three types of thinking

	Expertise	Experiment	Experience
Type of problem	<i>"Where do we cut costs from operation?"</i>	<i>"Which design will improve our conversion rate?"</i>	<i>"Why do kids play and what makes a 'toy'?"</i>
Domain	Domain of classic business consultants.	Domain of software developers and growth hackers.	Domain of anthropologists and philosophers.
Activity	Logical analysis of existing data.	Prototyping and user-testing.	Contextual immersion and critical thinking.
Situation	Predictable business environment with clear cause and effect.	Hunch for different creative options to try out as hypothesis.	Something is wrong, but no clear idea what, and what to do about it.
Outcome	Executable plans.	Iterations of new products and services.	Understanding of what is valuable.
	Low level of uncertainty		High level of uncertainty

Based on: Harnoss & Harnoss (https://medium.com/@JJ_Harnoss/sense-making-and-innovating-a-primer-fc2061a0b384) and Madsbjerg & Rasmussen, 2014.

What type of problems are we working with? What type of thinking do we need to do?

Empowering Citizens through Artificial Intelligence

by the [Ministry of Finance](#)

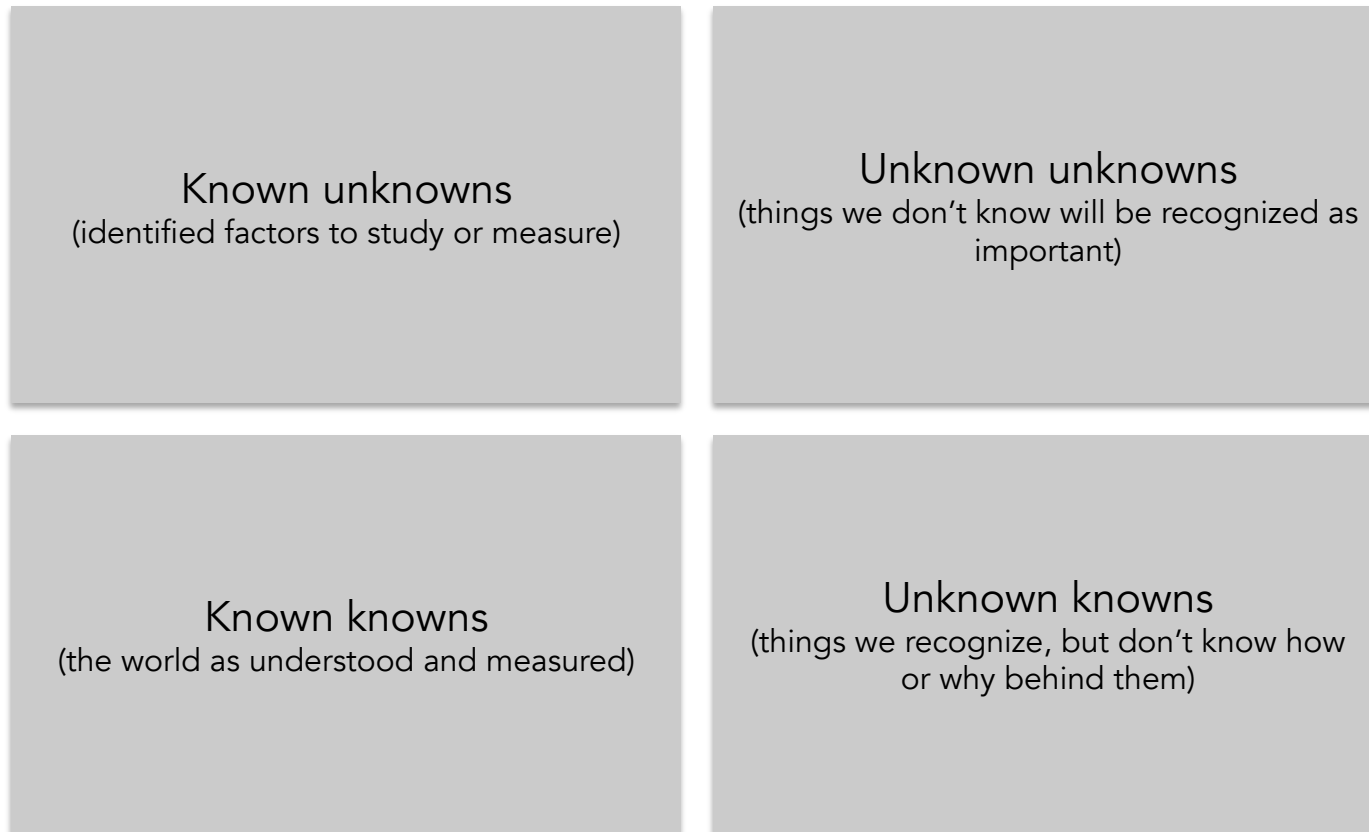
Finland is currently undergoing a profound digital transformation. The Ministry of Finance is preparing a national program for artificial intelligence (AI) at the same time as national information policy and a new Information Management Act are underway. Through such initiatives, significant growth in GDP and employment are projected. Goals for AI encompass and reach beyond growth, digital advancement and efficient administration of public services – the aim is to enable transformation toward a people-oriented and proactive society. Focus is on people’s real-life events such as milestones in education, family life, employment, etc. For people managing their life events, services should be provided seamlessly through AI across public organizations and businesses. AI would need ensure privacy, security and ethics while crossing boundaries of institutions and sectors, public and private, national and local. This project is a close collaboration with the ministry team and national network preparing and communicating the AI program for the coming 76th Government of Finland.

Boosting Consumer Rights for Finnish Business

by the [Finnish Competition and Consumer Authority](#) with [Ministry of Economic Affairs and Employment](#)

Many companies view customer satisfaction as a competitive advantage. Achieving customer satisfaction means respecting laws, including those protecting against false advertising, safeguarding of minors, securing warranties and customer privacy. 2018 marked 40 years of the ‘Consumer Protection Act’ in Finland. However, a recent EU study reveals that familiarity with consumer law among businesses and consumers in Finland has declined, which can put consumer trust at risk. The task of the Finnish Competition and Consumer Authority (FCCA) is to provide instructions, advice and information on consumer law. A goal of FCCA is increase knowledge, interest and investment in consumer rights, from early on in product planning, design and sales through ongoing customer support, service and product disposal. The biggest challenge seems to be small to medium-sized businesses. This project investigates why this is and how to boost consumer rights among businesses. Can consumer satisfaction, including laws, ethics and rights, be the new competitive edge?

Knowns and unknowns – recognizing new opportunities and issues



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

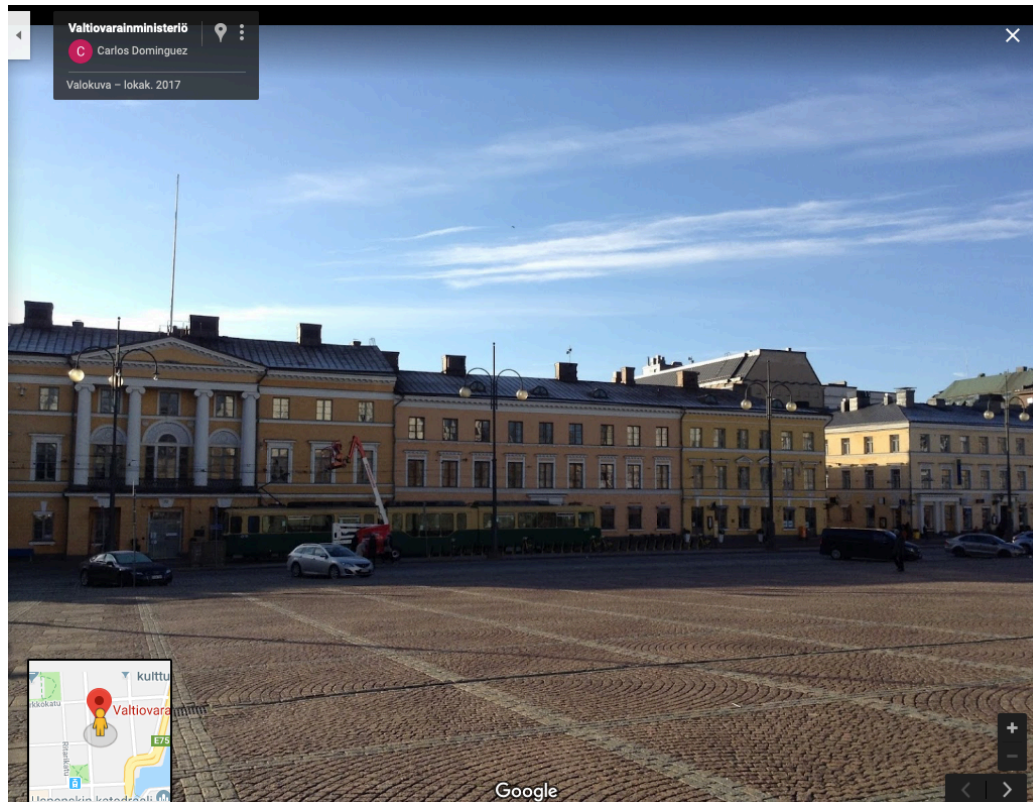


“How do we know that we are not biased in our analysis?”

->

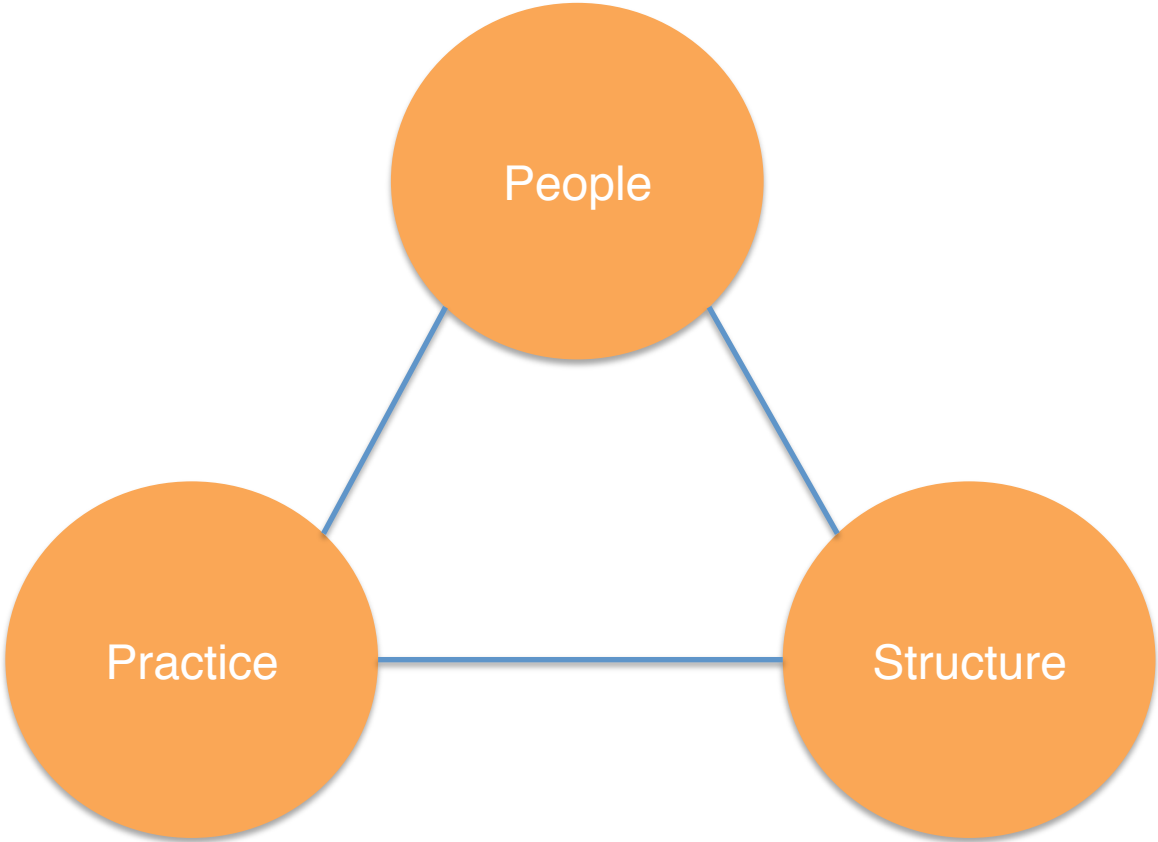
“What kind of thoughts, roles and relations affect our biases?”

Where and how can we learn the most? What will it be like?



- Field research usually means that learning is connected to concrete places.
- Exercise for getting a sense of a place prior to going there
- Helps you orientate, be prepared and get more out of your field trip
- You can also do an exercise of how someone would go about planning a specific kind of trip or activity
- Potential tools include youtube-videos, google maps, travel websites and discussion with people who live or have visited the location.
- Search for: places and their names, routes, potential issues to tackle, landmarks, sites to visit etc.

Framing the related Phenomenon



Building an understanding of the relevant aspects - People

Who are the people we need to understand?

What is it like being them?

How is the service/product/policy x part of their life?



Building an understanding of the relevant aspects - Practices

What are the relevant practices that people engage in?

How do people experience these?

What is the role of service/product/policy x in these practices?



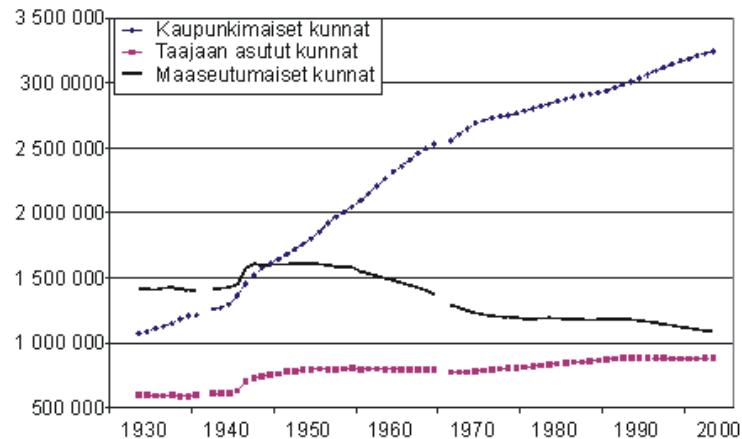
Building an understanding of the relevant aspects - Structure

What are the relevant social and cultural structures for the context of service/product/policy x?

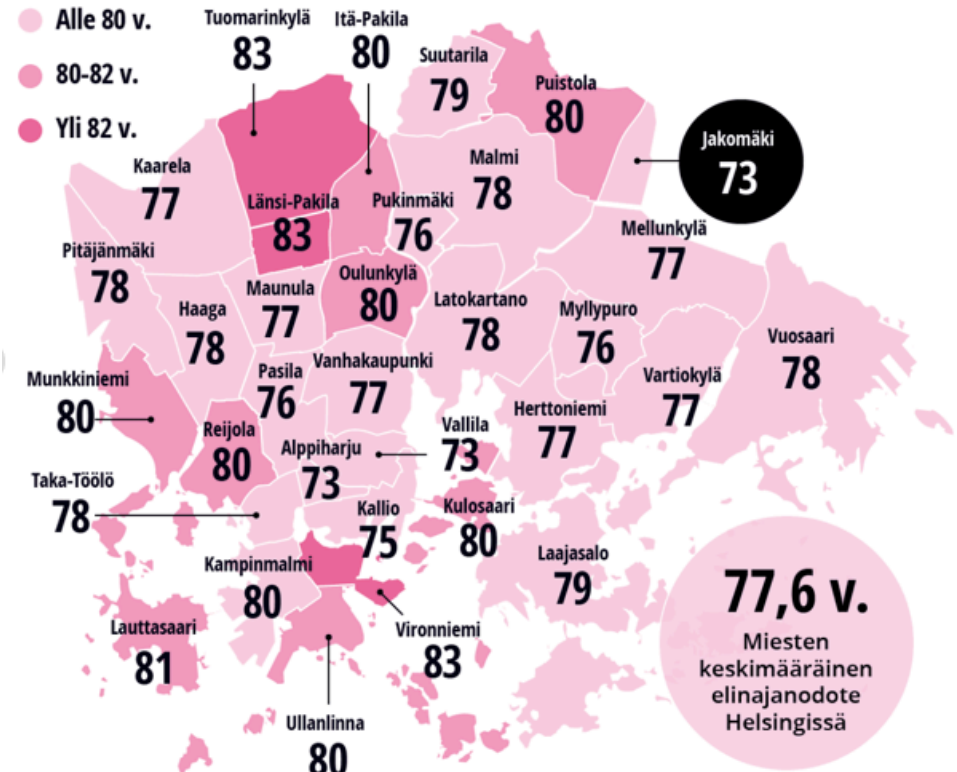
How have these changed over time and what are the ongoing changes?

How do these changes affect the people and practices?

Kuvio 3. Väkiluku kuntaryhmittäin 1933-2003



Lähde: Valtion taloudellinen tutkimuskeskus, Tilastokeskus



<https://yle.fi/uutiset/3-9937017>

Ethnography in modern settings – studying different social worlds



**From gathering data to
building understanding**

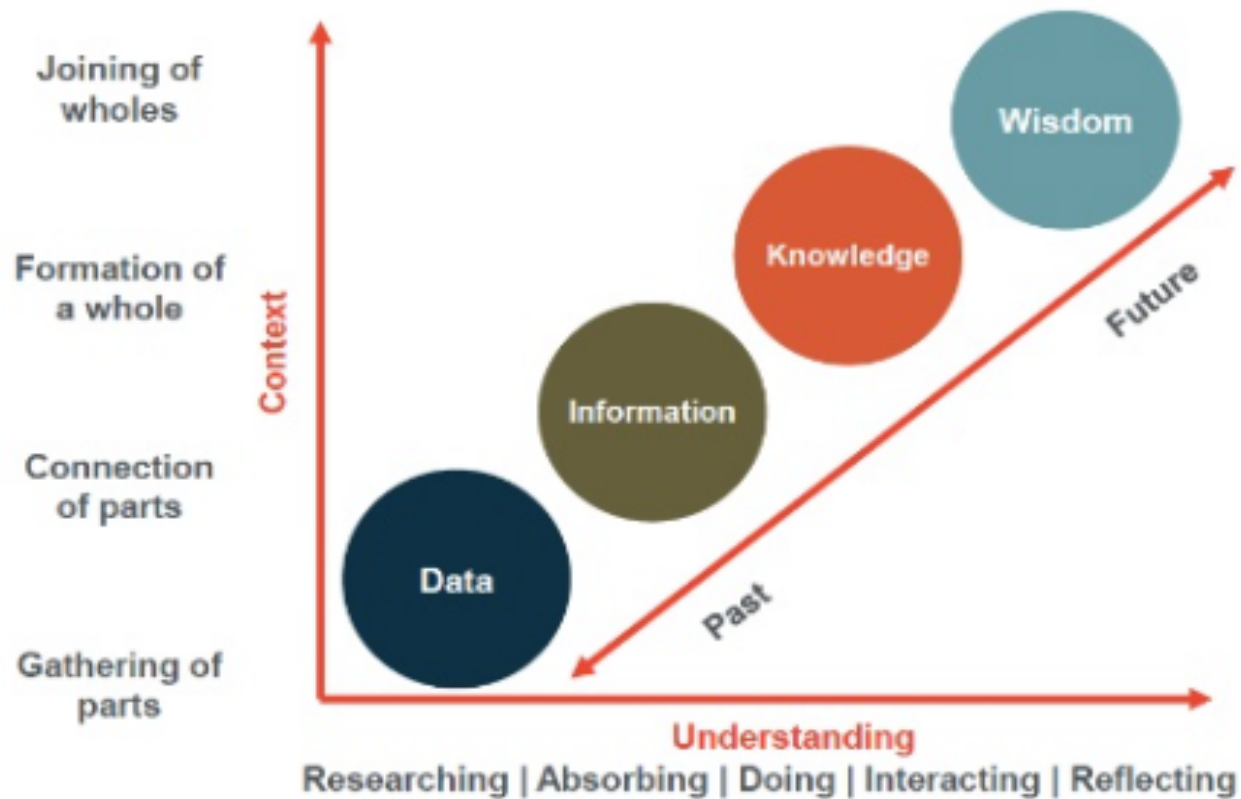
Collection of data is not sufficient in itself

Ackoff's view: From data to wisdom



- **Wisdom:** evaluated understanding that can be applied to decision-making.
- **Understanding:** appreciation of "why" – synthesis of new knowledge.
- **Knowledge:** collection and application of data and information; answers "how" questions
- **Information:** data that are processed to be useful and have a meaning; provides answers to "who", "what", "where", and "when" questions.
- **Data:** symbols as raw data. For example 0&1

Insights as wisdom to make right kind of business decisions



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 understand how EU citizens planning a move to Finland perceive the immigration services. Main focus is on the perceived value and potential issues of AI-powered services.

- Provides guidance for research and setting of research questions
- Helps in taking the research to a more concrete empirical level
- Not the same as the original problem leading to the study

Insights are crystallized forms of understanding that support the creative work or decision making

Words typically used to describe human insights

Deep understanding

Truth

Discovery

Unconscious needs

Inspiration

Consumer aspirations

Perspective

Typical explanations of the insights

Insights are NOT just data

Insights are NOT just findings of market research

Insights give perspective that inspires good business decisions

They don't just answer WHAT, but also WHY and HOW

Truth is not final

How to Study People?



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.



23 t.



Watch

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

Listen

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

Work

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

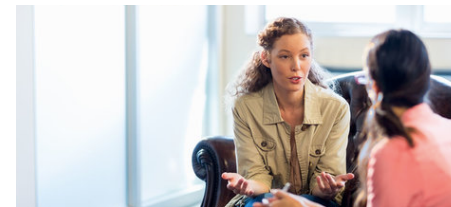
Play

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

Observations



Interviews



Co-creation workshops



Design probes



Desktop research



Group discussions



Prototyping workshops



Design games



Examples of methods from past DfG courses

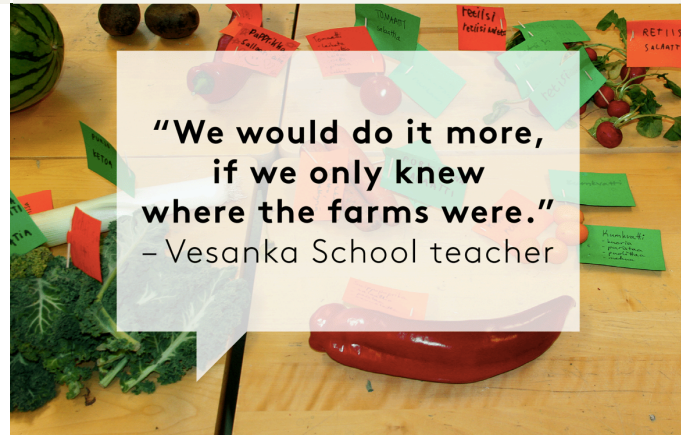
Desktop for statistics

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, Evi Pauliina Saarikoski, Panu Matias Autio, Richard Eric Birger Hysterstedt

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

The form is titled 'MAATILALOMAKE 2015' and includes sections for:

- 1. MAATILAN KOSKEVAT PERUSTIEDOT (Basic information about the farm)
- 2. TÄYDENTÄMÄN EHTOJEN TIETOJA (Information about supplementary conditions)
- 3. MAANSIIRTOLAISUUDEN EHTOALUE (Information about the land transfer area)
- 4. TILAN JA SIISIN OLLUT KOTILÄMMIT (Information about heating systems)

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

When you move into interviewing keep these in mind:

Interviewing



- Leave your worldview behind the door. Embrace and learn from theirs.
- Introduce your goals, timetables and practicalities.
- Build rapport.
- Listen to, by asking questions and body language – don't be afraid of silence.
- Feel free to ask stupid and simple questions – you are there to learn about their experience and views.
- Make the familiar foreign and foreign familiar. Re-learn from a new viewpoint.
- Plan your interview, but be prepared to discover emerging themes and new ways to frame the problem
- Think about where you will have the interview and how you will document it.

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?

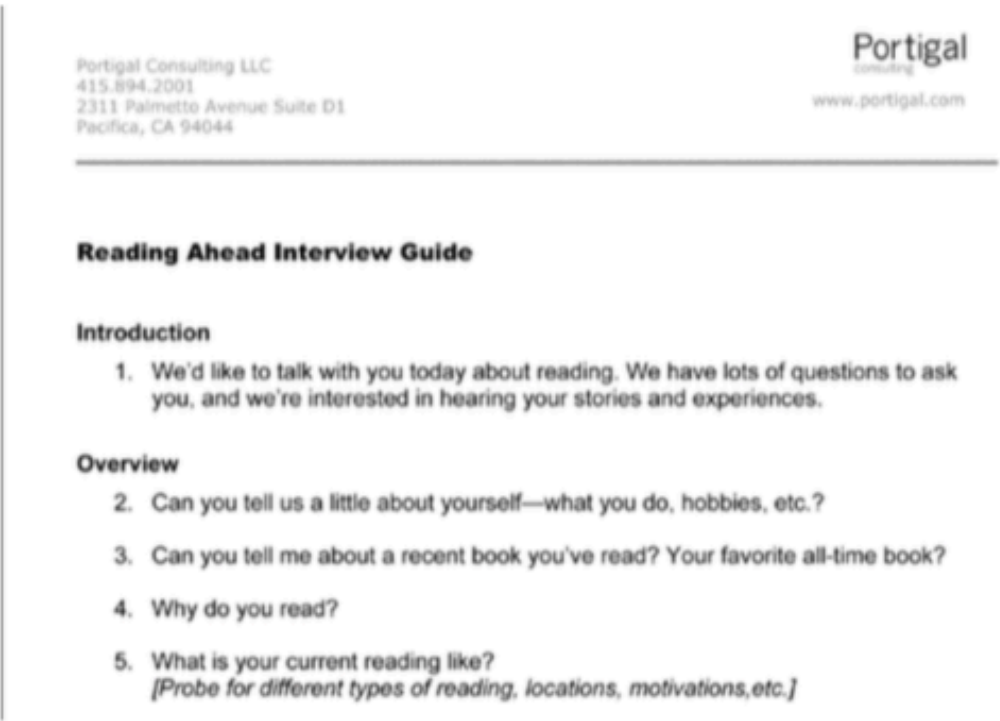
Daily
Weekly

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.
- 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 important for people to visit the forest?”
- 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

Interviews

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



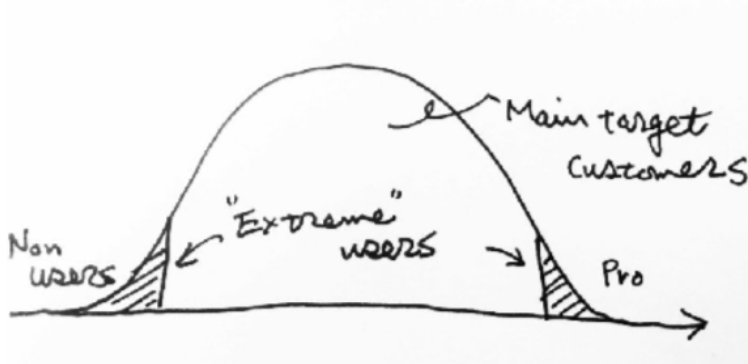
Example from: guardian.com Taking time out to listen: the benefits of focus groups.

- 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.

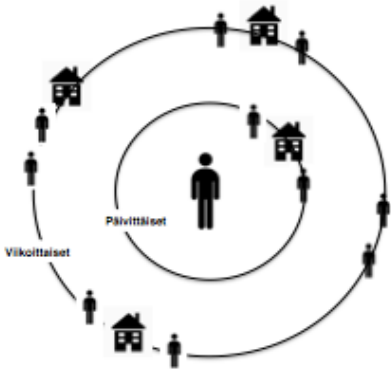
Different types of interviews: extreme users



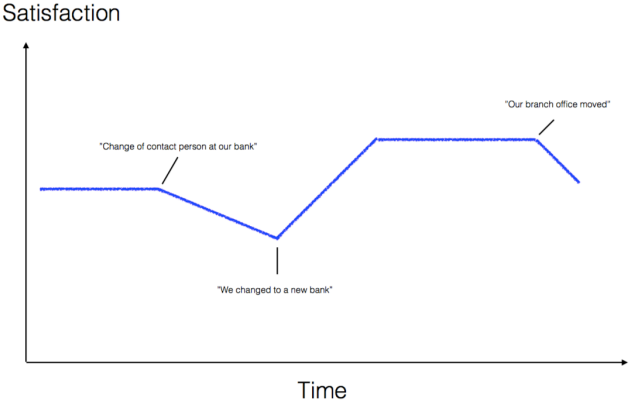
- Consider different extreme types of users that really stretch some qualities of a service or product
- “If it works for the extreme user it works for everyone”
- Very skilled and experienced vs. inexperienced users



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: 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.

Cultural Probes

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

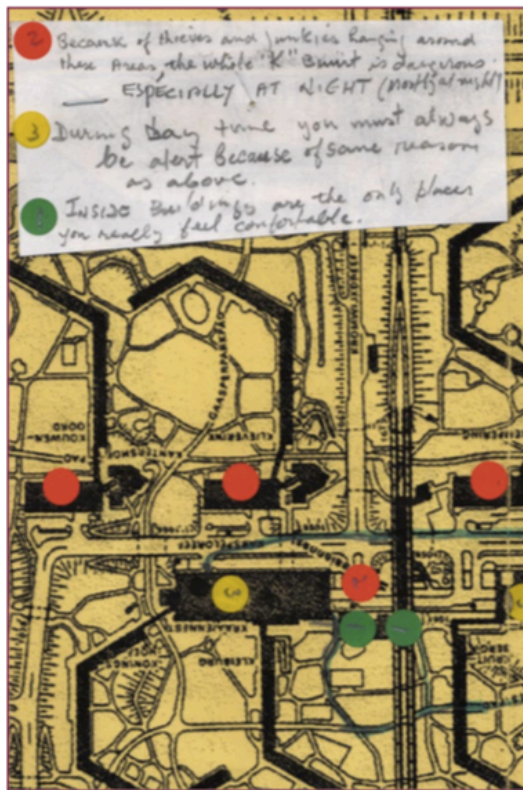


Figure 7. A returned map showing zones of safety and fear in the Bijlmer.



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



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

Attention is finite – plan what you are observing in the field


Table 3. What to observe during participant observation


Category	Includes	Researchers should note
Appearance	Clothing, age, gender, physical appearance	Anything that might indicate membership in groups or in sub-populations of interest to the study, such as profession, social status, socioeconomic class, religion, or ethnicity
Verbal behavior and interactions	Who speaks to whom and for how long; who initiates interaction; languages or dialects spoken; tone of voice	Gender, age, ethnicity, and profession of speakers; dynamics of interaction
Physical behavior and gestures	What people do, who does what, who interacts with whom, who is not interacting	How people use their bodies and voices to communicate different emotions; what individuals' behaviors indicate about their feelings toward one another, their social rank, or their profession
Personal space	How close people stand to one another	What individuals' preferences concerning personal space suggest about their relationships
Human traffic	People who enter, leave, and spend time at the observation site	Where people enter and exit; how long they stay; who they are (ethnicity, age, gender); whether they are alone or accompanied; number of people
People who stand out	Identification of people who receive a lot of attention from others	The characteristics of these individuals; what differentiates them from others; whether people consult them or they approach other people; whether they seem to be strangers or well known by others present


Try out a service from 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.