

MMI 1

User Research & Focus Groups

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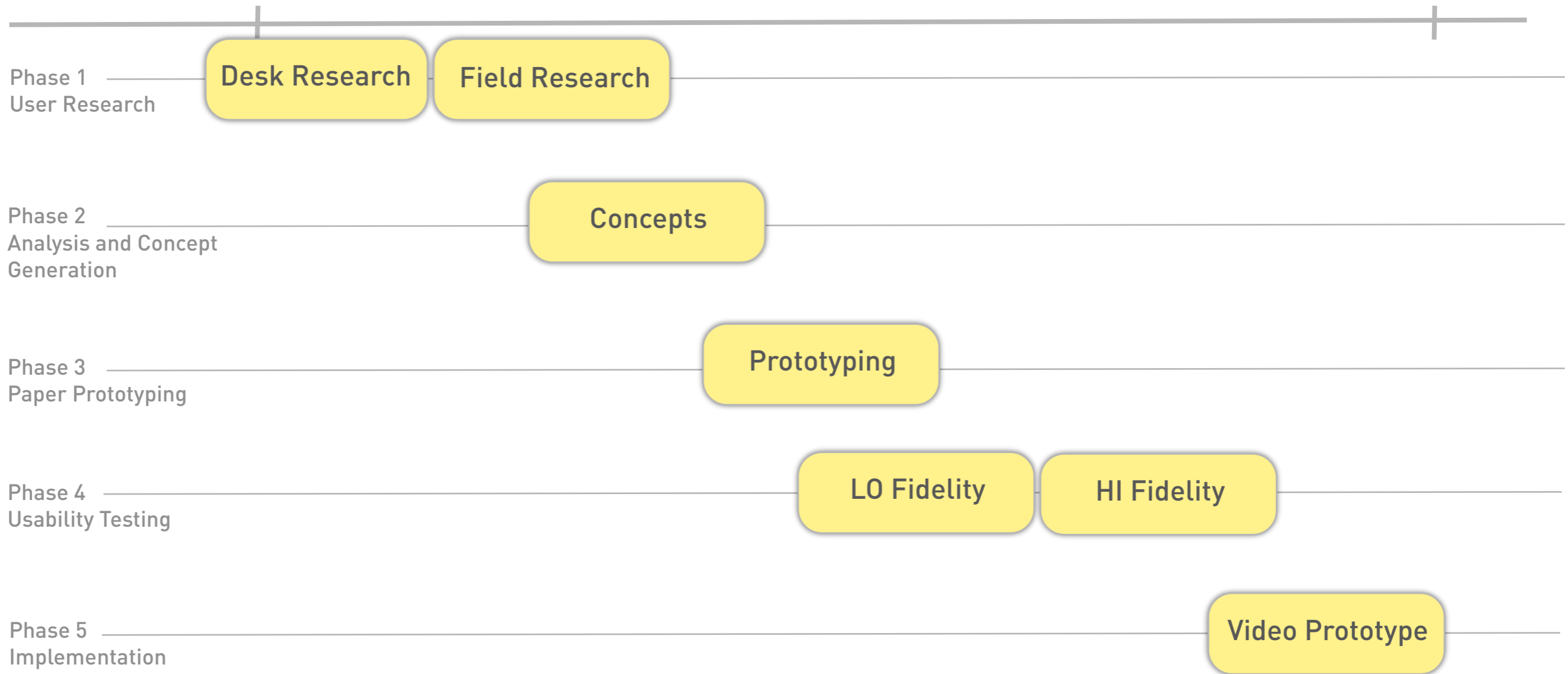
**In user research we are driven by a
need for a deeper understanding**

Susan Dray - Dray & Associates, Inc., USA

**What is it we are trying to
understand?**

INTERACTION DESIGN





**Before conducting user research
3 main questions
have to be answered:**

- 1.) what is the role of the end user in
the design process ?**
- 2.) what are the constraints of the
design space we want to explore?**
- 3.) who are we designing for ?**

Just to name some companies
executing large ammounts of user
research:



**User Research is mostly structured
as shown:**

**Key Research Planning → Do Field
Reserach → Find Opportunity Spaces**

Key Research Planning

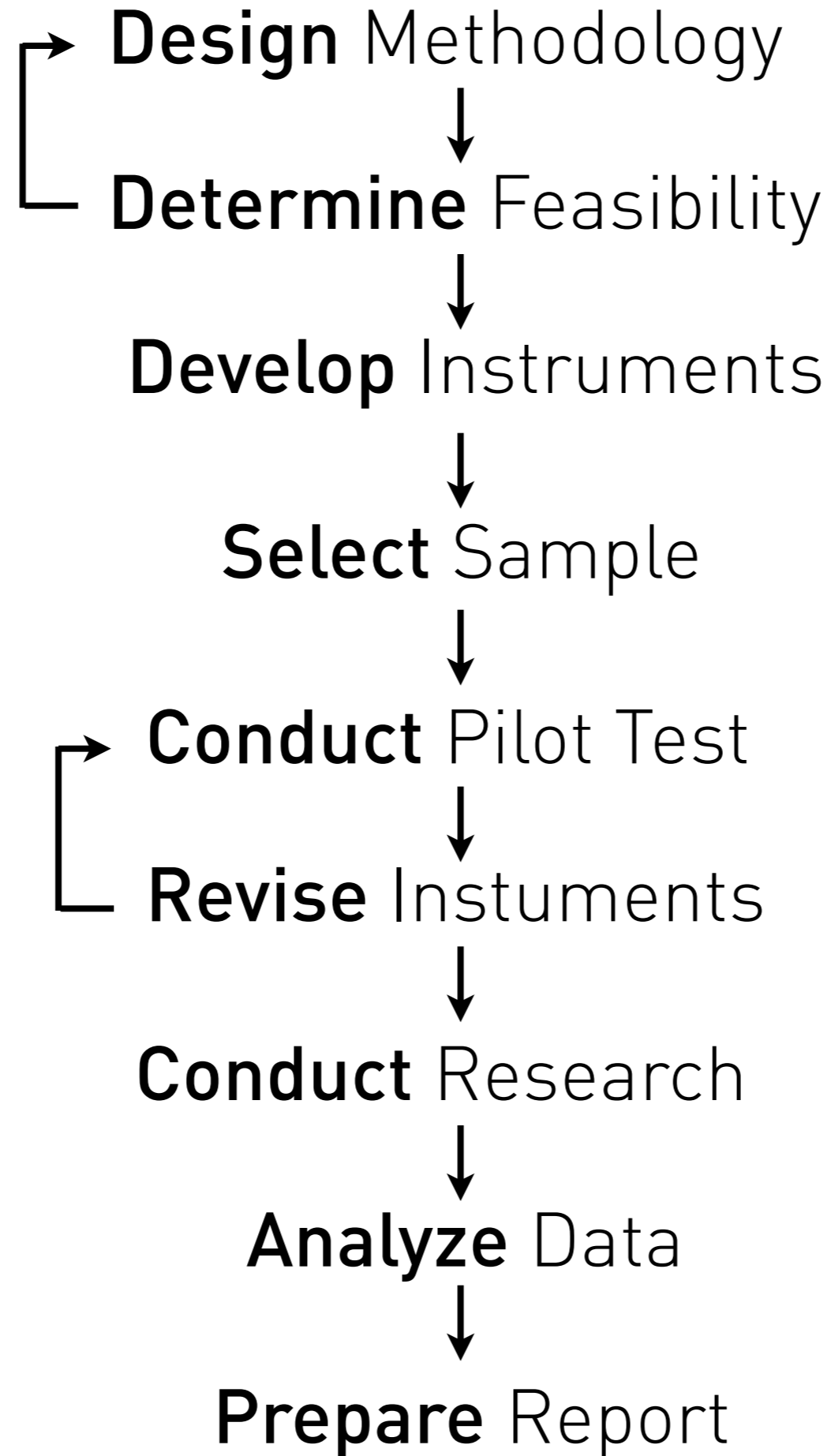
1st) Create General Assumptions

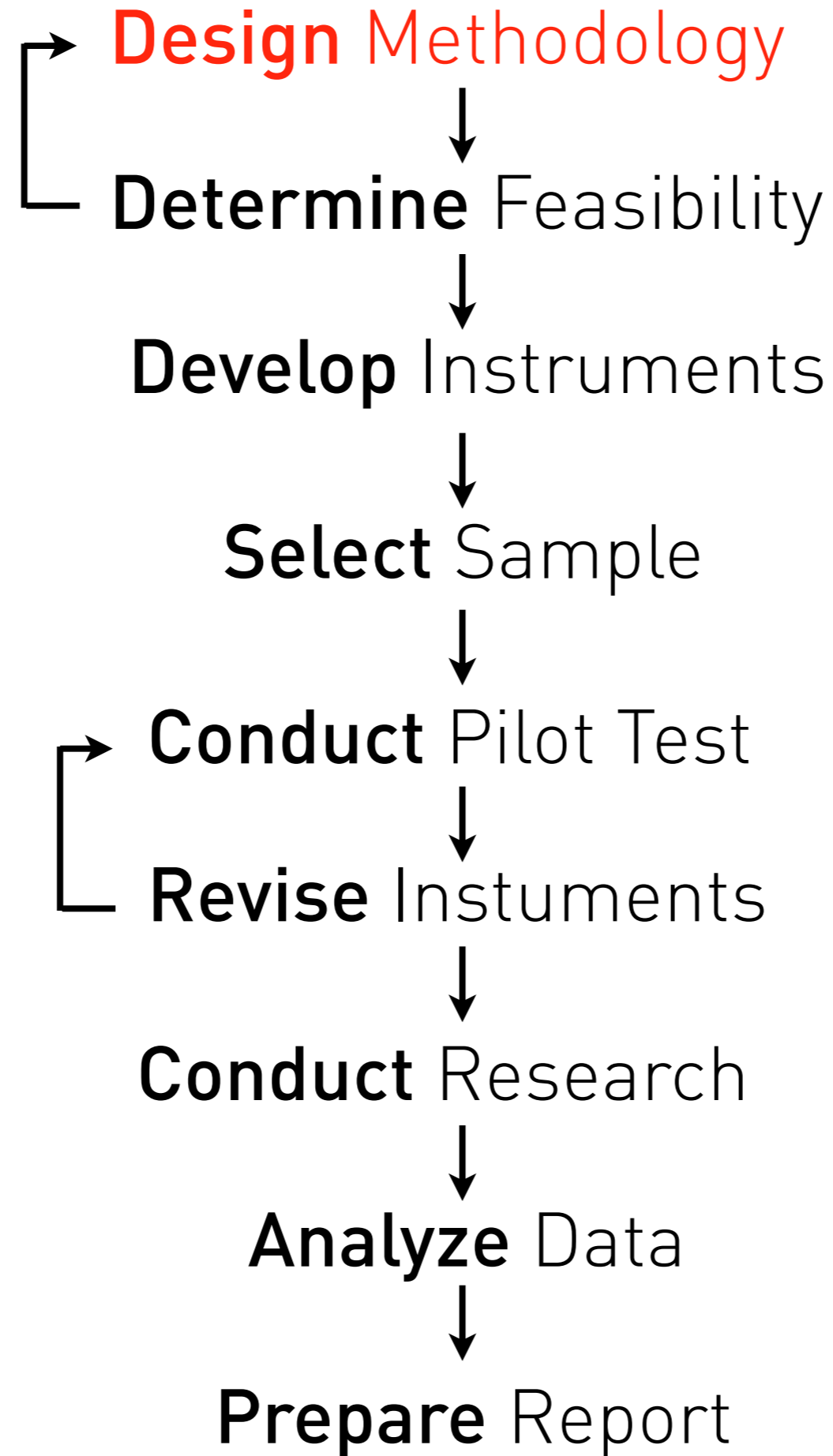
→ general assumptions are there to be shattered within the field work

Standard Observation Tools:



User Research Process





6 Main ways to gather user data and insights within user research

- online & literature desk searches
- talking to people
- focus groups
- personal interviews
- telephone surveys
- online & mail surveys



User Research with Interviews and Questionnaires

Interview Introduction

- technique to collect information**
- interactive, verbal, real time contact**
- first step in collecting information for needs analysis**
- research method for making personal contacts**



Informal gathering of qualitative user data



Cheap and easy

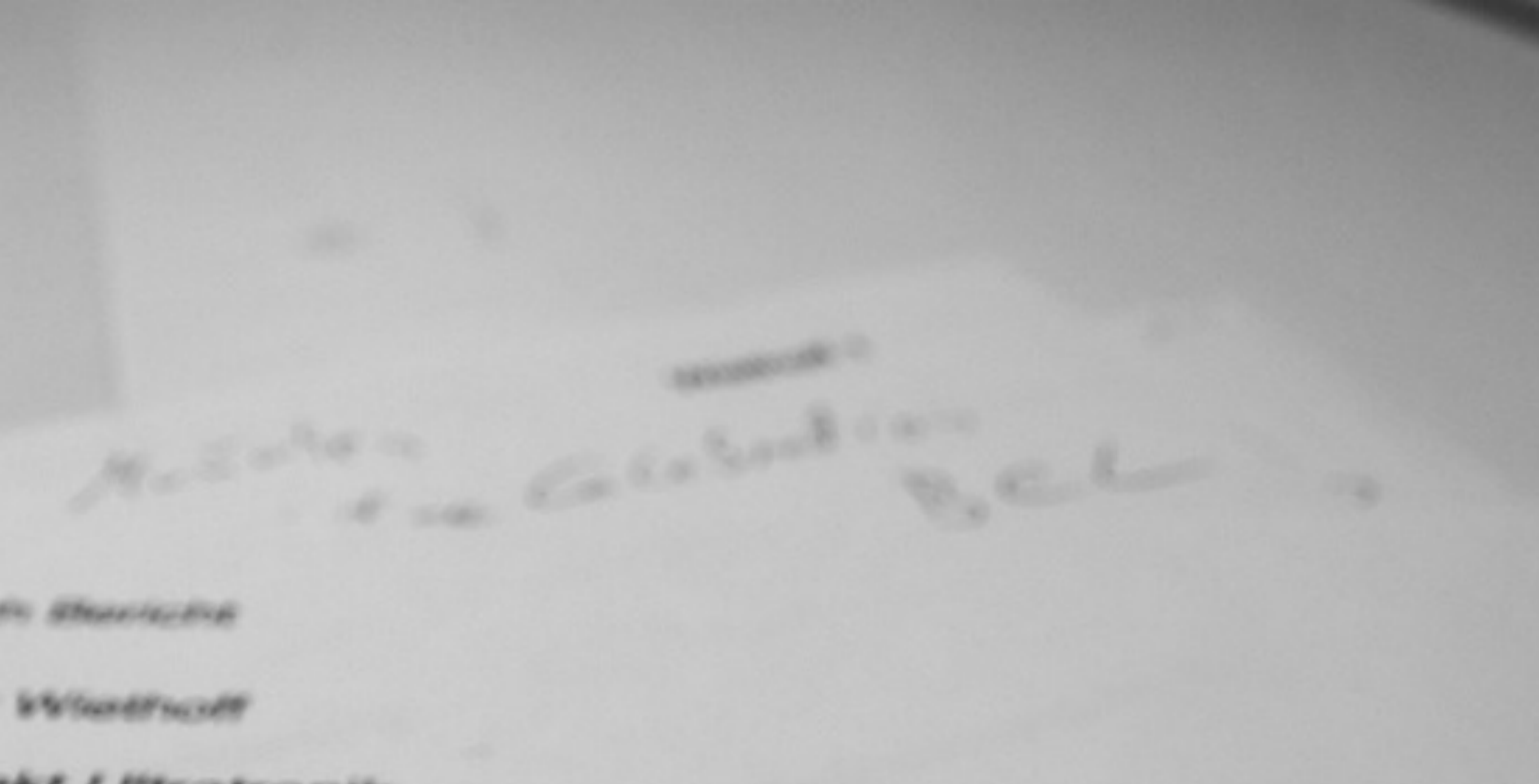


Creates a lot of data, potentially expensive to analyze



Good for review / discussion with the user

**Questionnaires are an essential element
when conducting personal interviews**



How to Design User Research Questionnaires:

User Research Questionnaire

What is it we are trying to understand?

→ set **Goals!**

(short abstract)

→ helps to stay focused and ask precise questions directly addressed to the goals of the study

As a general rule, with only a few exceptions, long questionnaires get less response than short questionnaires. Keep your questionnaire short. In fact, the **shorter** the **better**.

Use **simple and direct language**. The questions must be clearly understood by the respondent. The wording of a question should be simple and to the point. Do not use uncommon words or long sentences.

Begin with a few **non-threatening** and interesting items. If the first items are too threatening or "boring", there is little chance that the person will complete the questionnaire.

Place the most **important items** in the first half of the questionnaire → This way, also partly completed questionnaires will still contain important information.

Leave adequate space for respondents to make comments. One criticism of questionnaires is their inability to retain the "flavor" of a response. Leaving white space also makes the questionnaire look easier and thereby increases response.

Perform iterative **pre-tests** and eliminate or replace questions that are hard to understand or lead to useless / unsatisfying results.

Advice on Questions to Ask:

-finding Cause(s) : What is causing the problem ?

-finding Solution(s) : Ideas on how to solve a problem or initiate a business opportunity

-ask questions on only one dimension !

(e.g., “Were you satisfied with the quality of our food and service ?” (counter example))

Questionnaire should accommodate all possible answers:
e.g., consider the question:

What brand of computer do you own ?

A. IBM PC

B. Apple

What 's the issue here ?

-possible solution:

What brand of computer do you own ?

..... Do not own a computer

..... IBM PC

..... Apple

..... Other

Quick Breakout Session (One):

Write three questions regarding the chosen topic that would fit into an informal interview (5min).

In summary:

- keep it short**
- simple and direct language**
- non-threatening**
- leave space**
- important items in the first half**
- do pre tests (iterative development)**
- accommodate all answers**

**Essential truth might not be found.
Within 5 days of work in user
research, you learn mostly about
yourself and your assumptions, not
so much about the (international)
places you went.**

Elizabeth Churchill - Yahoo! Research, USA

Different User Types and Different Contexts

**What are the different types of users
and usage context?**

**Some of the most relevant
which can be subject to user
research:**

External context:

Surroundings (e.g., rural areas vs. cities)

Personal context:

Novice or expert (level of expertise)

Frequent or infrequent usage (regularity vs. irregularity)

Physical or psychological limitations (user constitution)

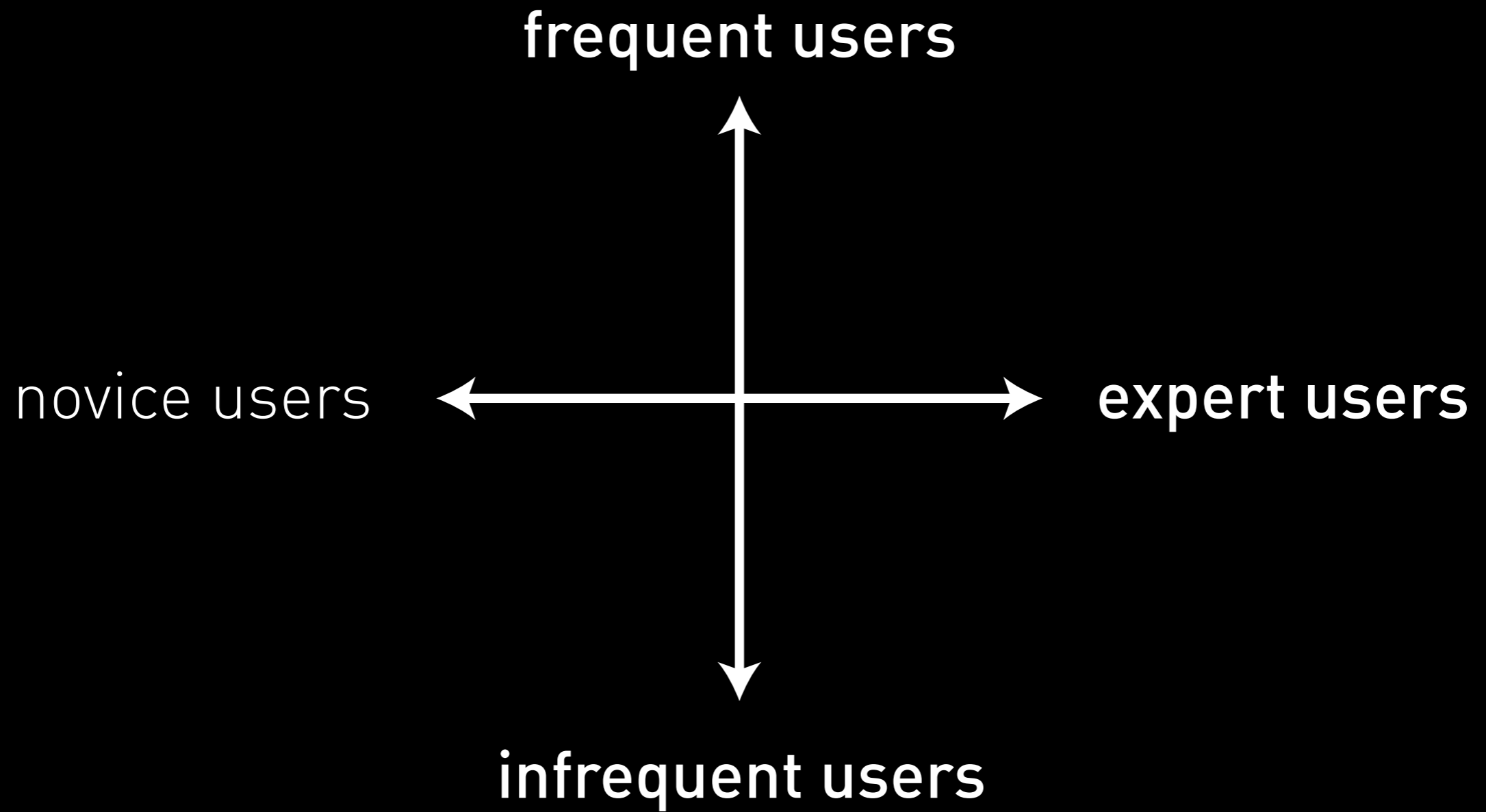
Modal context:

Lean forward or lean backward (type of interaction)

Search or browse (user mode)

**Focus of attention or minimal attention
(task dependency)**

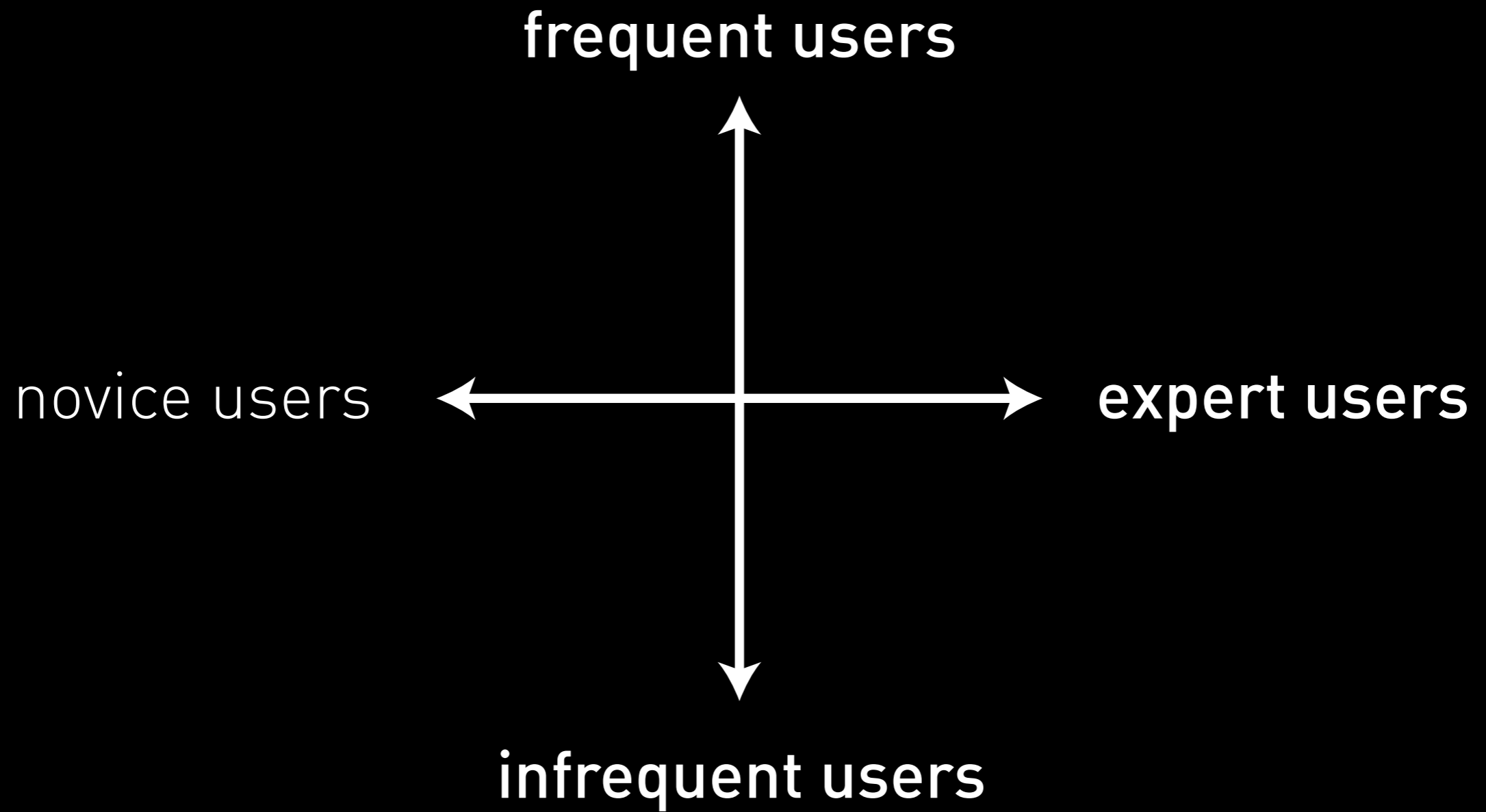
One Example:





BMW 3 Series Cockpit

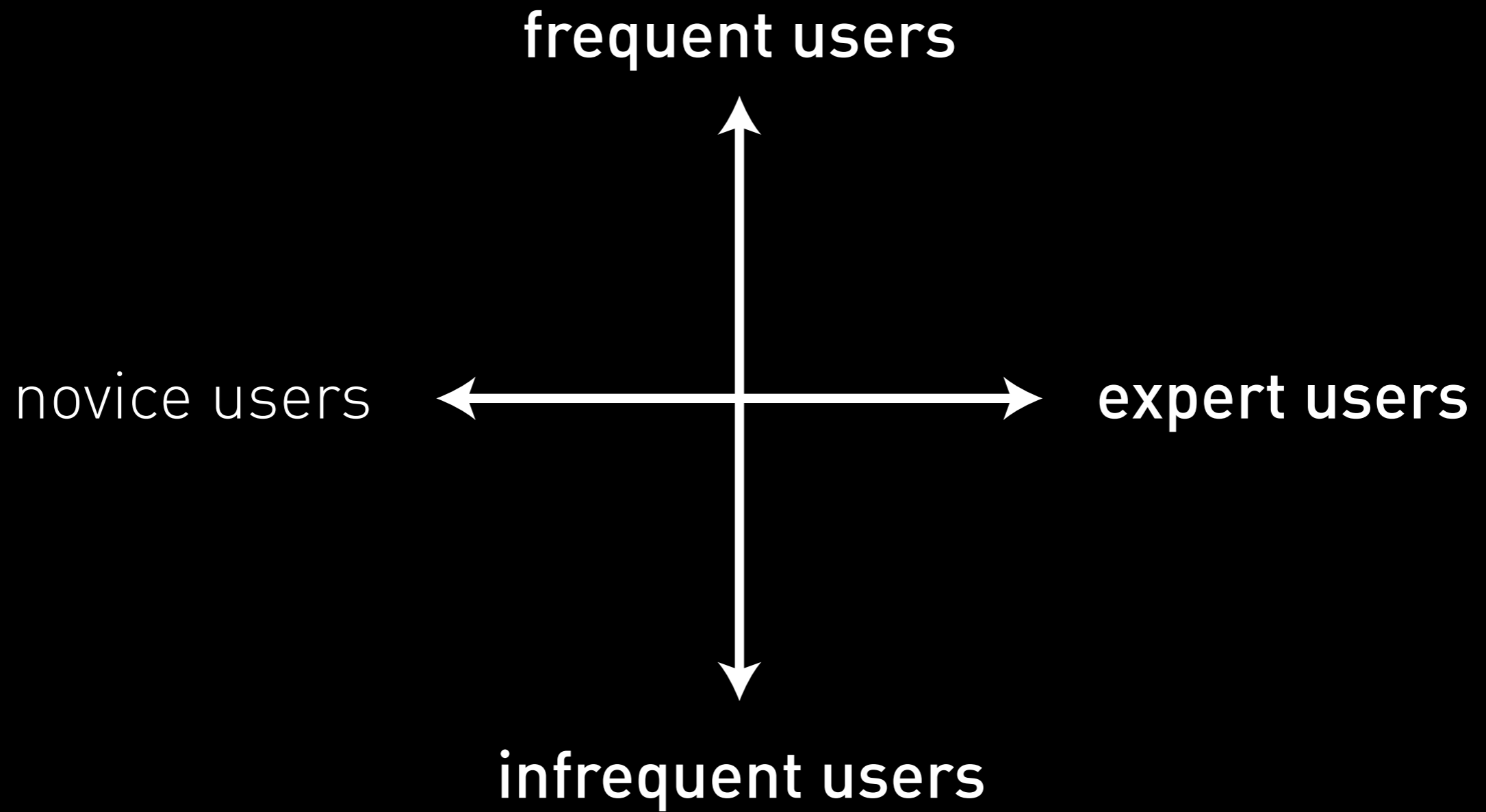
photo credits © BMW





BMW Formula 1 Cockpit

photo credits © wikimedia



Different user types and usage frequency will require dedicated solutions.

6 Main ways to gather user data and insights within user research

- online & literature desk searches
- interviews
- focus groups**
- personal interviews
- telephone surveys
- online & mail surveys



Focus Group Basics

- informal gathering of 6-8 people
- focused on a specific topic
- get indication how people think and feel
- collecting opinions, attitudes, feelings, perceptions, and ideas



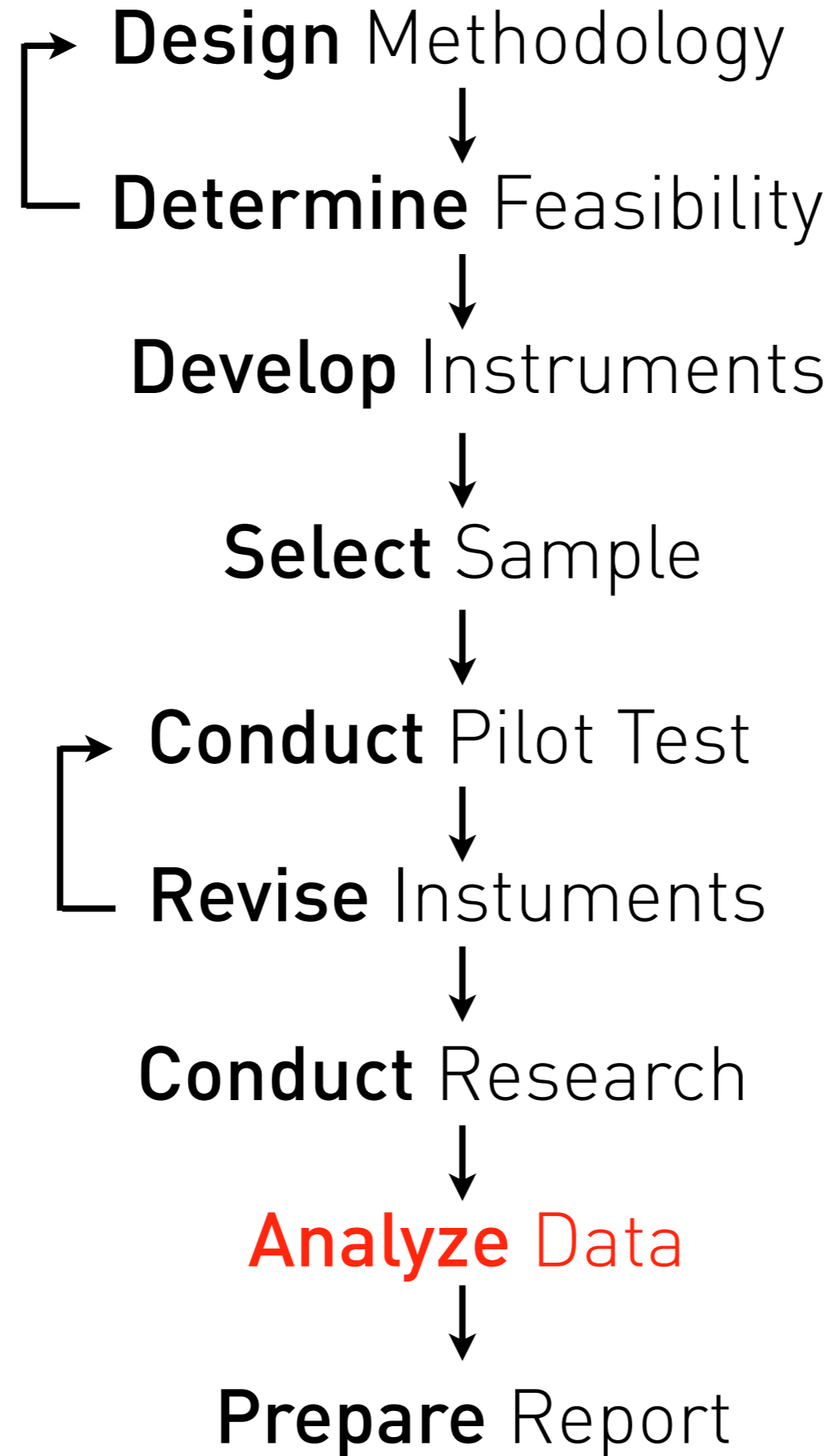
Understand why people act or react in a certain way

- Advantages

- wide range of information
- in-depth information (Why the user ...)
- possibility to explore related topics or go into more detail
- cheap and easy to do

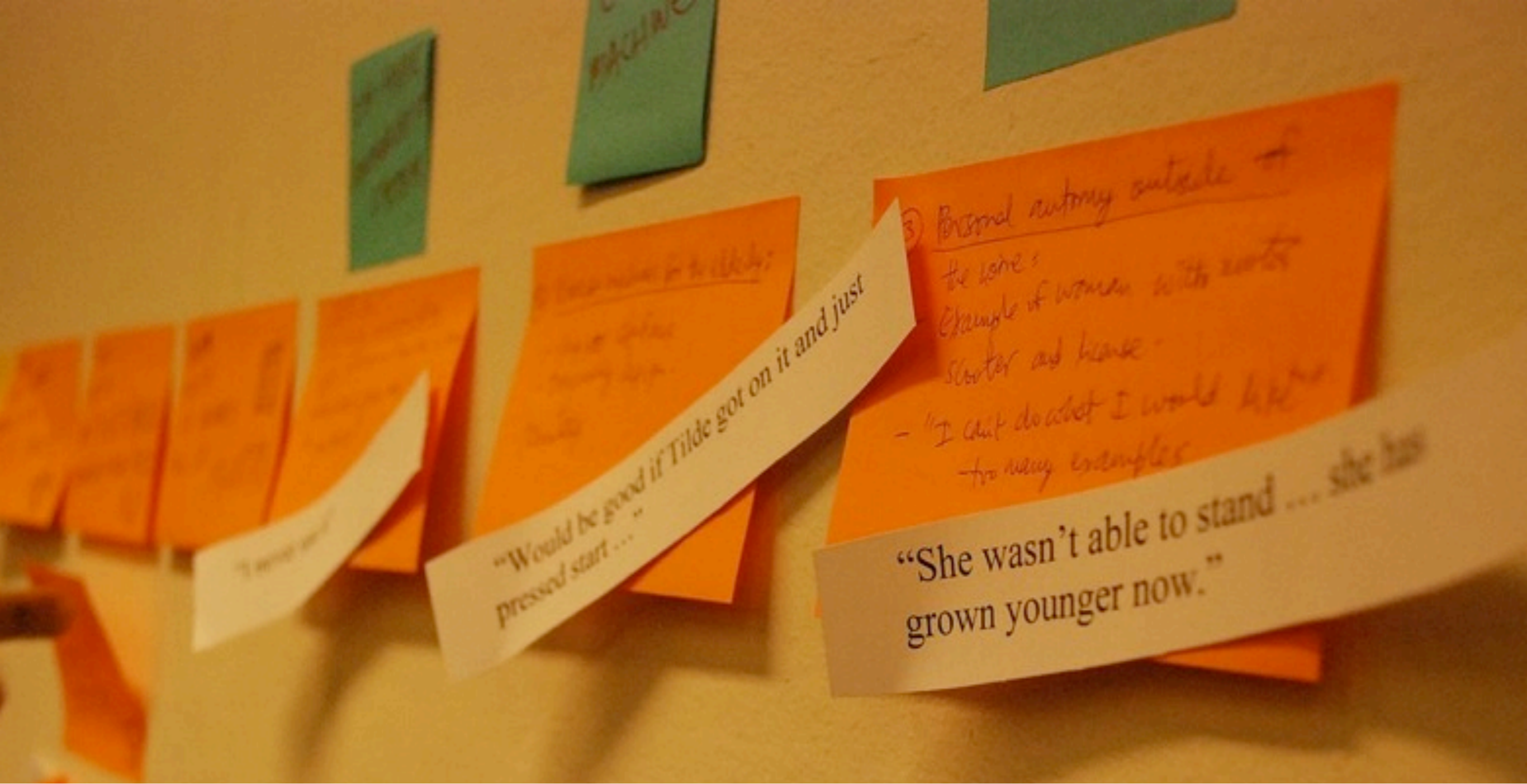
- Disadvantages

- the moderator plays a significant role and can influence the results
- no quantitative information can be gathered
- findings can not easily be generalized





Data extraction & analysis (field research map)



Hierarchies of main findings (prioritize & filter)

Role of artifacts within user research:

Artifacts can play a significant role in the process while staying focused and structured on the topic & making a complex technology or system explainable within a short time frame

(sketches, probes, 3D artifacts)

**One example of a Design Research
Extension Tool: Sketching with Objects**



SKETCHING WITH



27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

0 1 2

6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

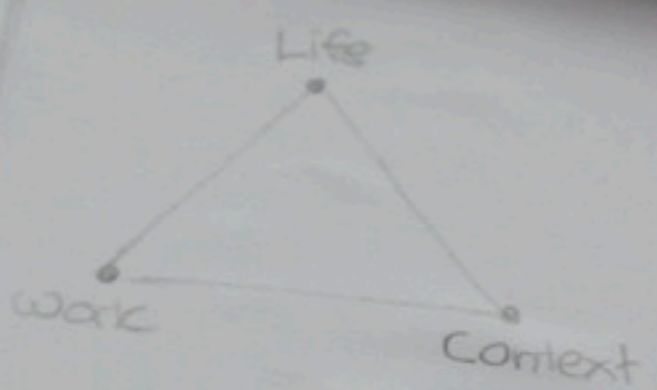
38 39 40 41 42

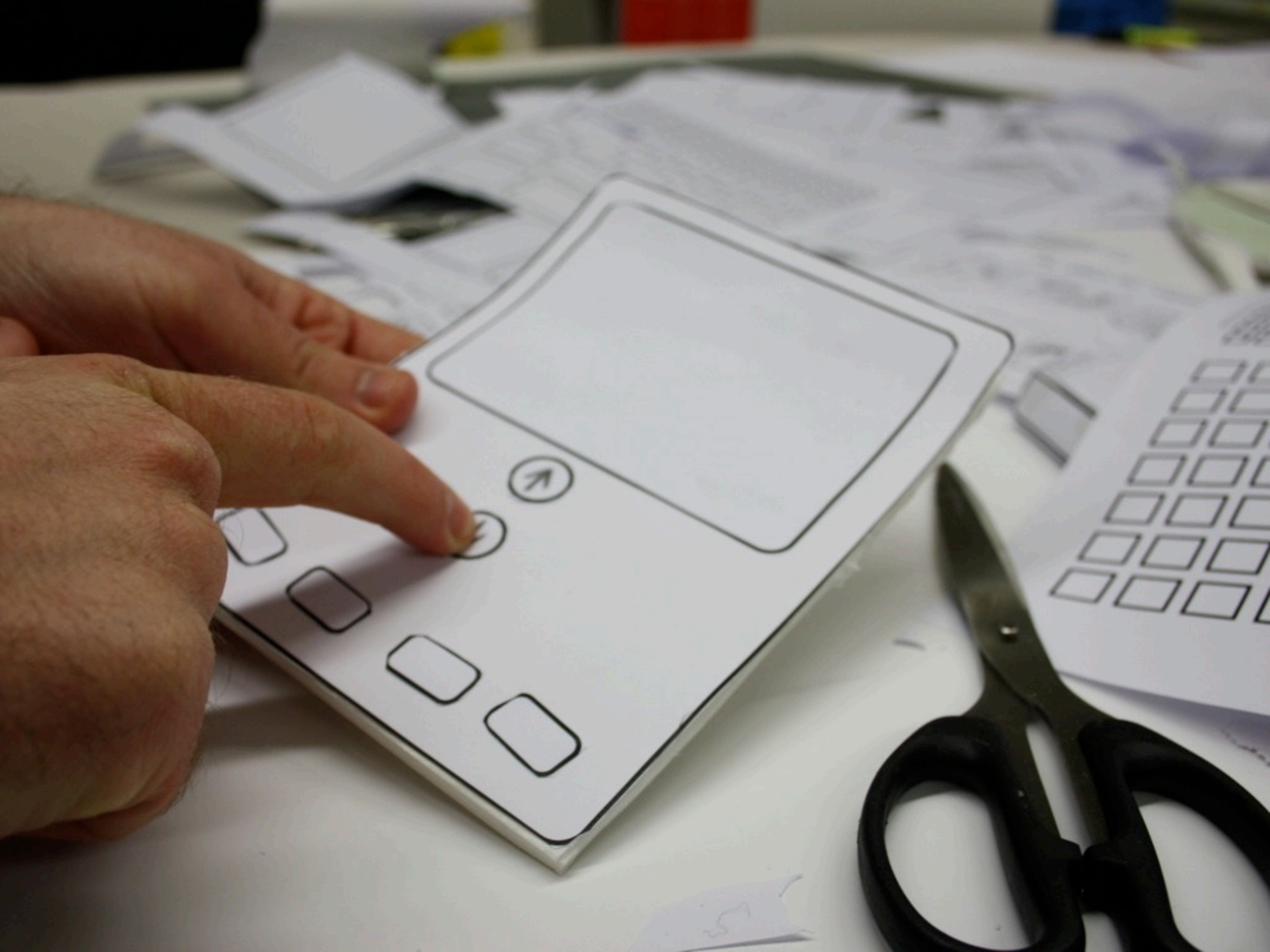
Monet - Life



▶ |||

BIO
1875
1890





Scheduling and **T**ime **P**lanning

Hours

Duration

1.) Goal clarification	.....	.....
2.) Overall study design	.....	.....
3.) Selecting the Sample	.....	.....
4.) Designing the Questionnaire	.....	.....
5.) Conduct Pilot Test	.....	.....
6.) Revise Questionnaire	.....	.....
7.) Printing Time	.....	.....
8.) Locating the sample	.....	.....
9.) Mail & Response Time	.....	.....
10.) Attempts to get non-responders	.....	.....
11.) Editing Data	.....	.....
13.) Analyzing Data	.....	.....
14.) Preparing Report	.....	.....
15.) Printing and distribution

**End of this Lecture → References
worth looking at:**

References (books):

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Publisher: The MIT Press; 1 edition (October 1, 2007)

Language: English

ISBN-10: 0262134748

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Publisher: Morgan Kaufmann (March 30, 2007)

Language: English

ISBN-10: 0123740371

-andy field: How to Design and Report Experiments

Publisher: Sage Publications (2003)

Language: English

ISBN-10: 0761973834

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- Blom, J & Chipchase, J** : Contextual and cultural challenges for user mobility research, ACM 2005

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