

# INF03 Expérience Utilisateur

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## 3. User Research – methods

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# Plan pour aujourd’hui

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- ▶ Aperçu de méthodes d’observations
- ▶ Point sur les entretiens
  - ▶ Canevas
  - ▶ Entretiens prévus

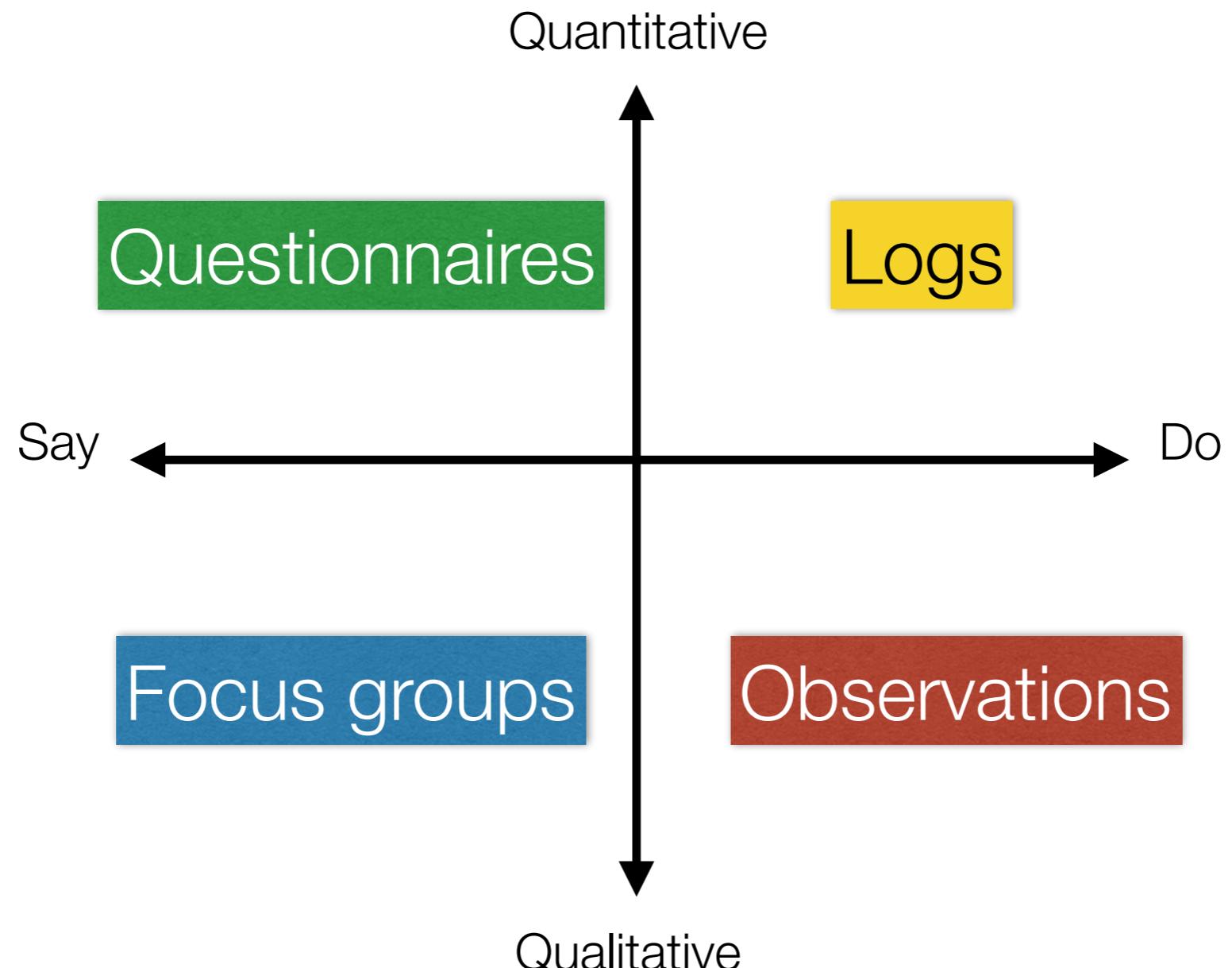
# A wide variety of methods

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- ▶ Ethnography
- ▶ Contextual inquiry
- ▶ Interviews
- ▶ Diary studies
- ▶ Probes (cultural, technology)
- ▶ Task analysis
- ▶ Laboratory study
- ▶ Questionnaires
- ▶ Focus groups

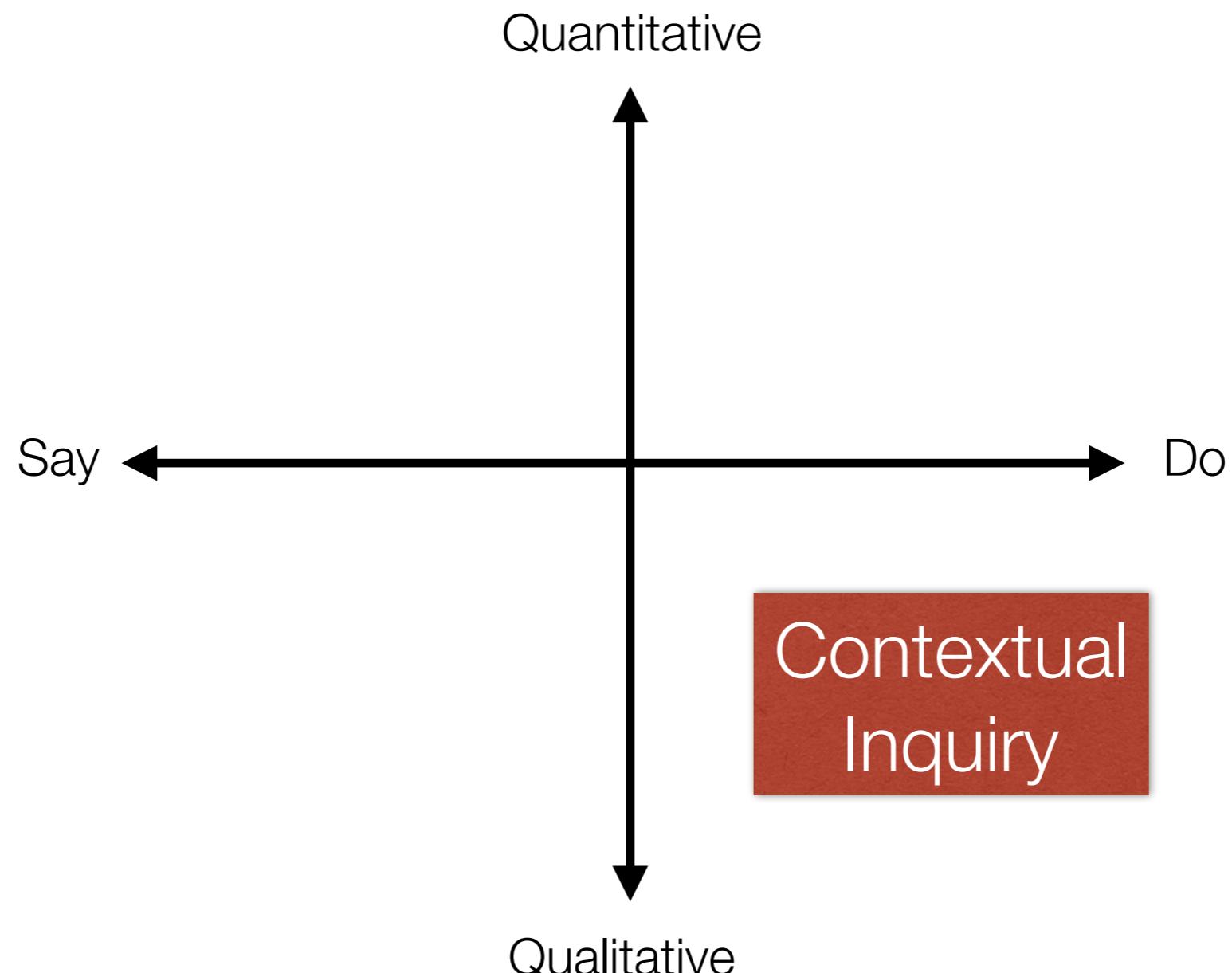
# A wide variety of methods

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# Contextual inquiry

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# Contextual Inquiry

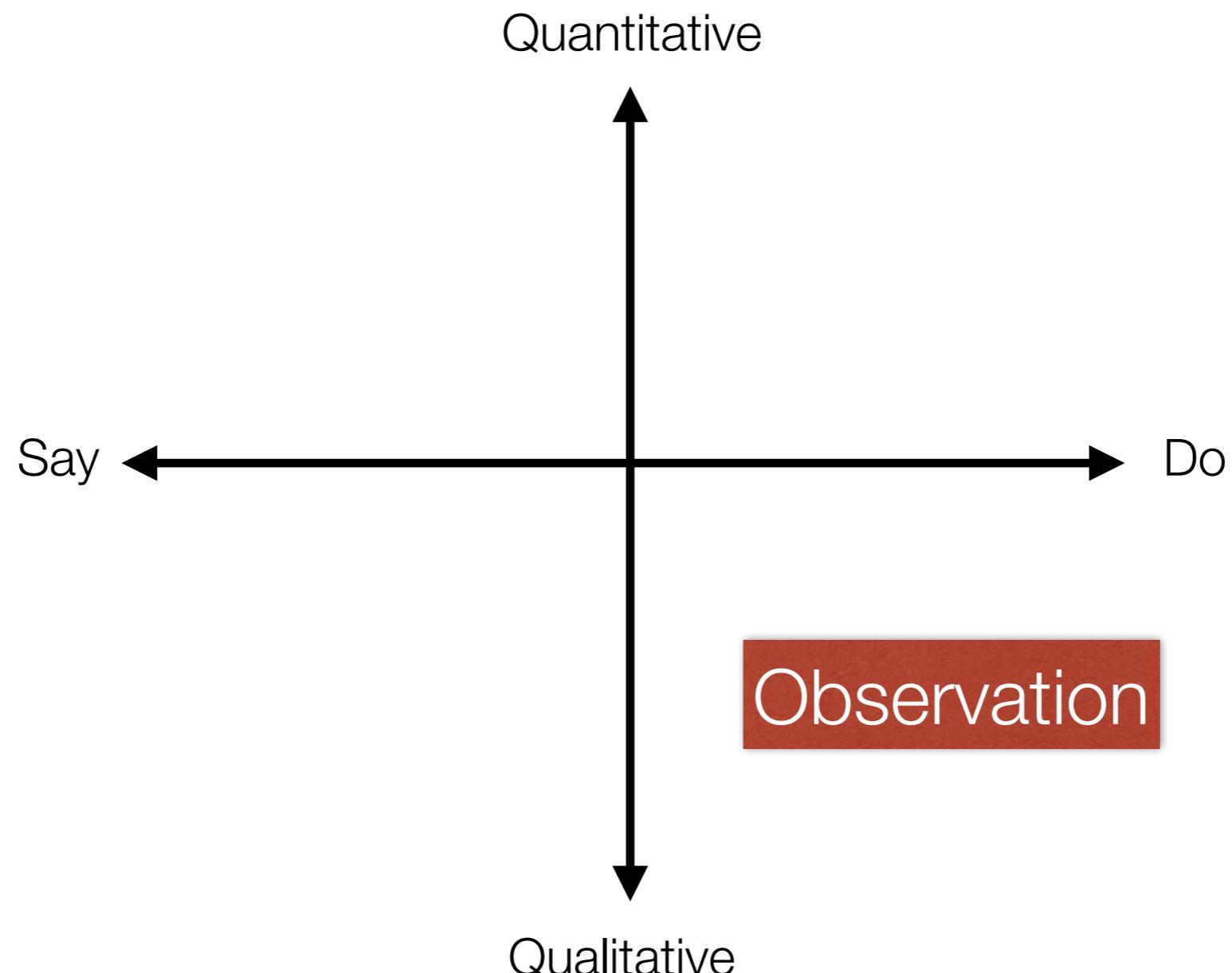
Aller plus loin : Beyer and Holtzblatt, Contextual Design

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- ▶ Involve participants / users
- ▶ Contexte
  - ▶ Observe users conducting real activities in the environment, work, home, sports...
  - ▶ Be focused and specific
- ▶ Partnership
  - ▶ Master-apprentice relationship
  - ▶ Participants show how they do things as they explain
  - ▶ Interviewer looks and asks questions

# Other direct observation methods

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# IDEO Method Cards

# Fly on the Wall

## How

Observe and record behavior within its context, without interfering with people's activities.

## Why

It is useful to see what people do in real contexts and time frames, rather than accept what they say they did after the fact.

## Example

By spending time in the operating room, the designers were able to observe and understand the information that the surgical team needed.



FLY ON THE WALL

# A Day in the Life

## How

Catalog the activities and contexts that users experience for an entire day.

## Why

This is a useful way to reveal unanticipated issues inherent in the routines and circumstances people experience daily.

## Example

For the design of a portable communication device, the design team followed people throughout the day, observing moments at which they would like to be able to access information.



A DAY IN THE LIFE

# Shadowing

## How

Tag along with people to observe and understand their day-to-day routines, interactions, and contexts.



## Why

This is a valuable way to reveal design opportunities and show how a product might affect or complement user's behavior.



## Example

The team accompanied truckers on their routes in order to understand how they might be affected by a device capable of detecting drowsiness.



SHADOWING

# Personal Inventory

## How

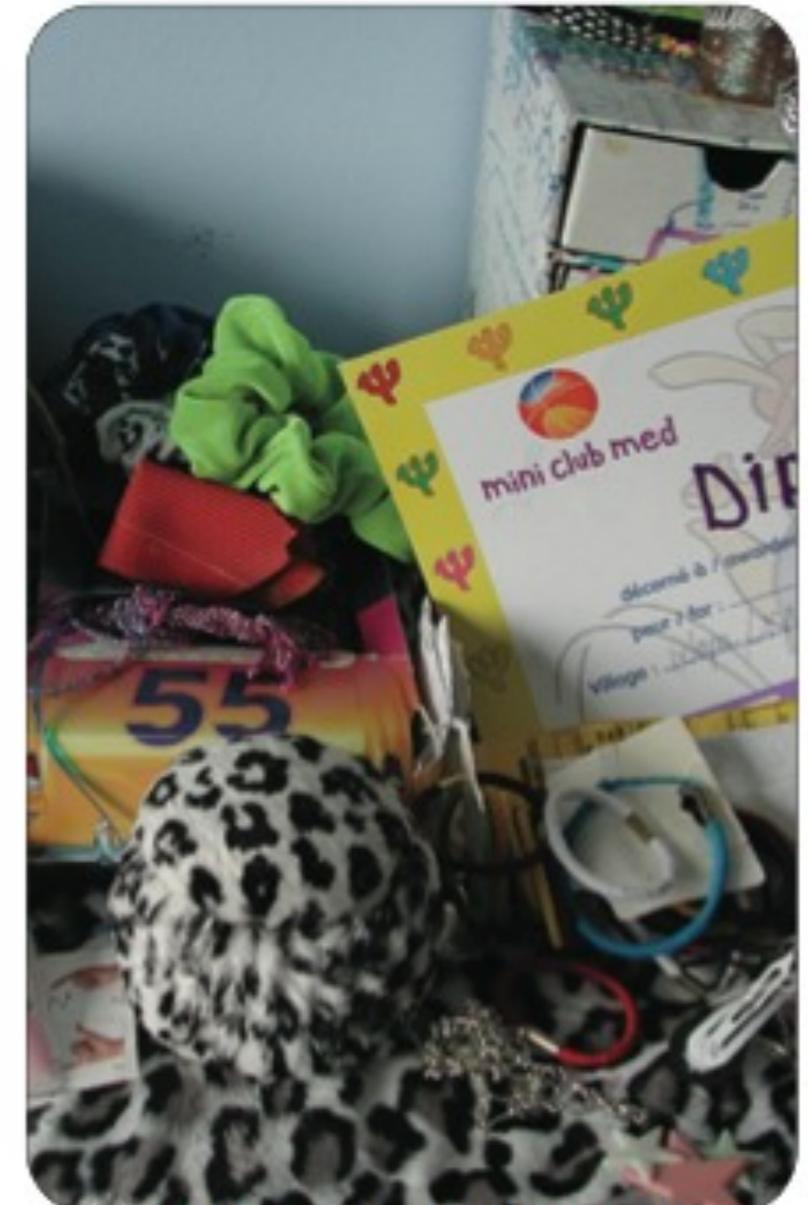
Document the things that people identify as important to them as a way of cataloging evidence of their lifestyles.

## Why

This method is useful for revealing people's activities, perceptions, and values as well as patterns among them.

## Example

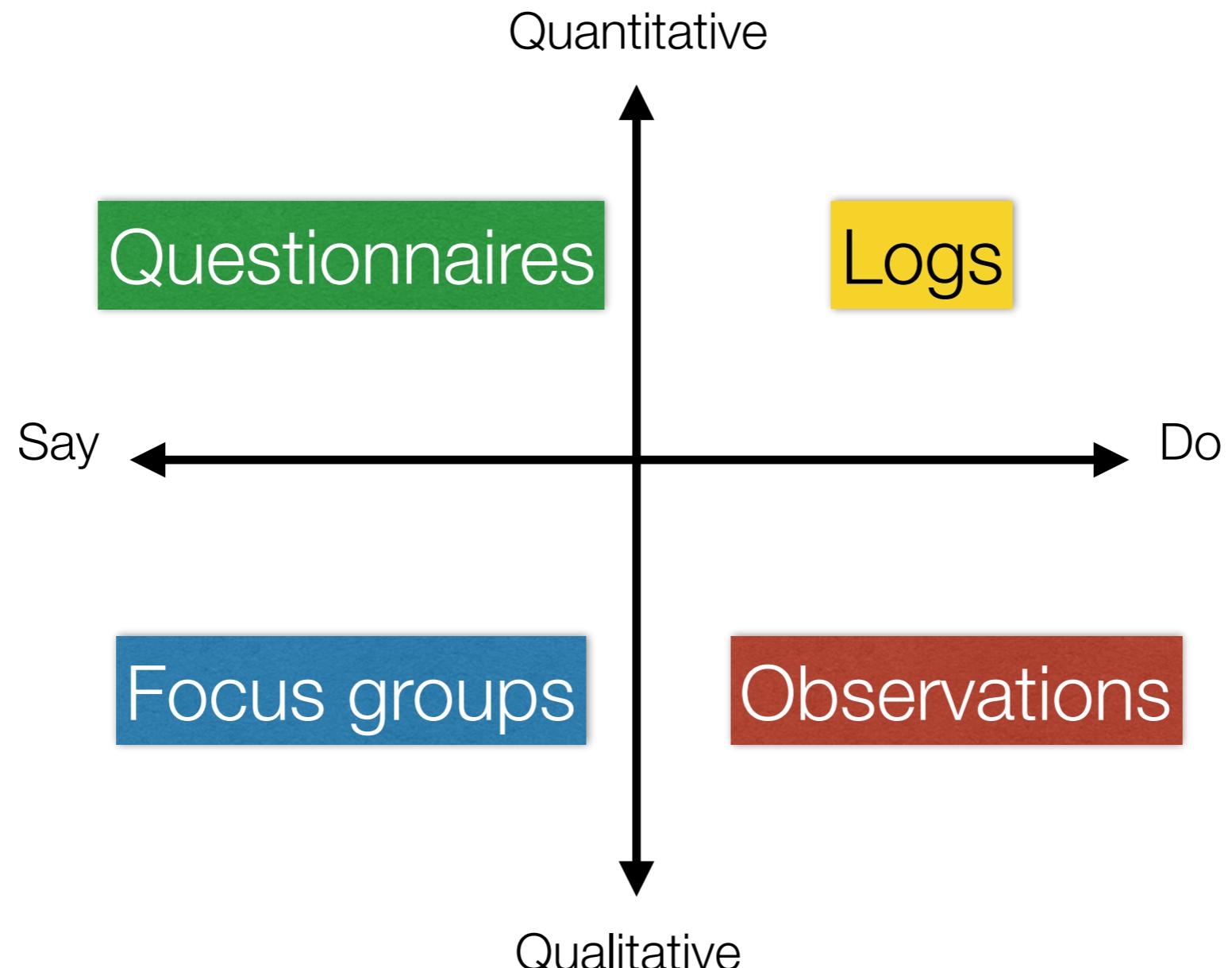
For a project to design a handheld electronic device, people were asked to show the contents of their purses and briefcases and explain how they use the objects that they carry around everyday.



PERSONAL INVENTORY

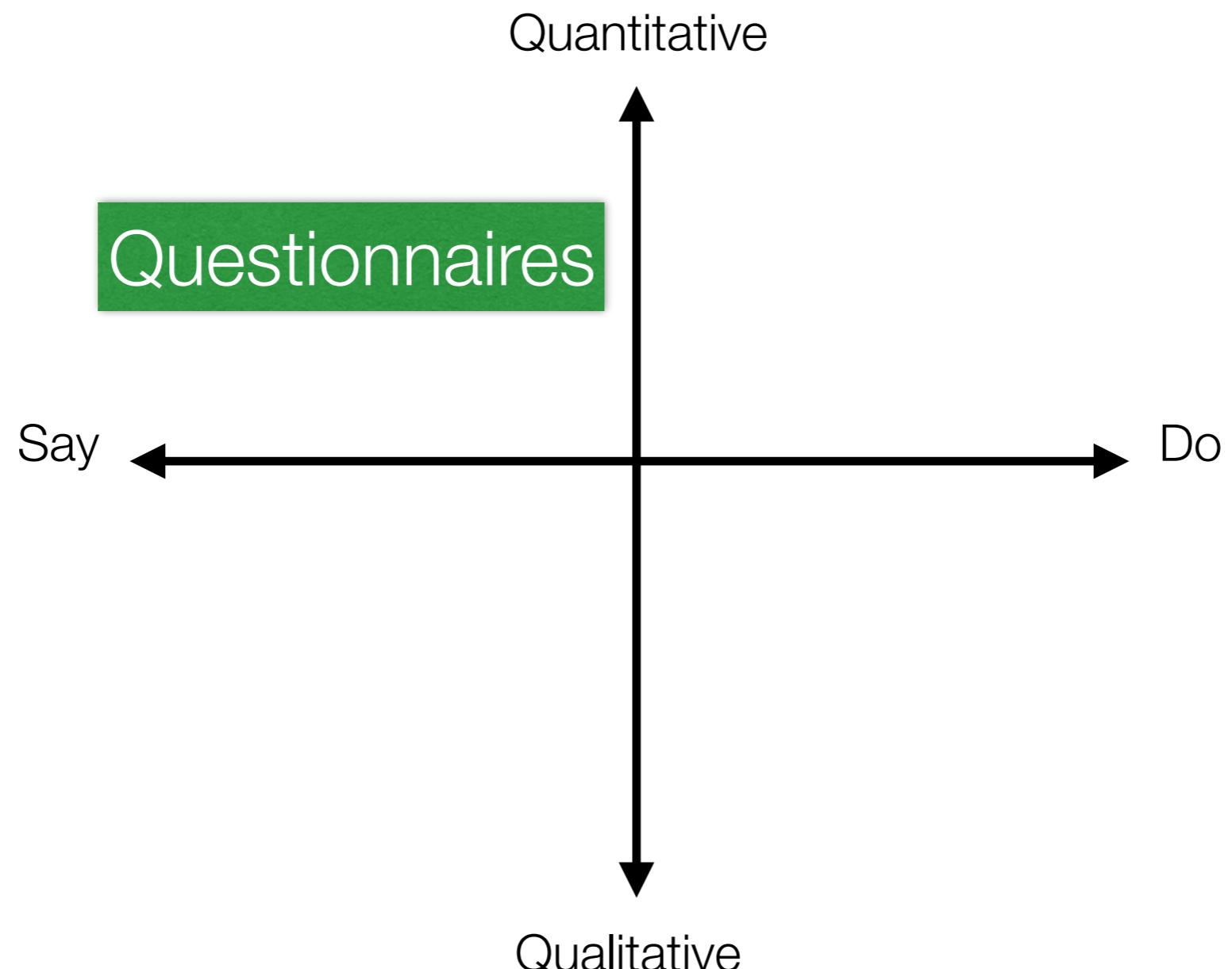
# A wide variety of methods

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# Questionnaires

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# Questionnaires

<http://attrakdiff.de/index-en.html>

## ► UX evaluation grid : Attrakdiff

### Evaluation of the product Demo - A

With the help of the word-pairs please enter what you consider the most appropriate description for **Demo - A**. Please click on your choice in every line!

human	<input type="radio"/>	technical					
isolating	<input type="radio"/>	connective					
pleasant	<input type="radio"/>	unpleasant					
inventive	<input type="radio"/>	conventional					
simple	<input type="radio"/>	complicated					
professional	<input type="radio"/>	unprofessional					
ugly	<input type="radio"/>	attractive					
practical	<input type="radio"/>	impractical					
likeable	<input type="radio"/>	disagreeable					
cumbersome	<input type="radio"/>	straightforward					

1/3

cancel

next

# Questionnaires

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Good to quantify

Not so good to discover / get ideas / for finding Solution(s)

Can be used to find what is causing a problem

Ask questions on only one dimension !

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

# What is it we are trying to understand?

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set Goals! ...

... and write a short abstract

(helps to stay focused and ask precise questions directly addressed to the - goals of the study)

# Questionnaires

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Questions can be closed or open

Closed questions are easier to analyze, and may be done by computer

Can be administered to large populations

Paper, email and the web used for dissemination

Sampling can be a problem when the size of a population is unknown as is common online

# Questionnaire design

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- ▶ The impact of a question can be influenced by question order.
- ▶ Do you need different versions of the questionnaire for different populations?
- ▶ Provide clear instructions on how to complete the questionnaire.
- ▶ Strike a balance between using white space and keeping the questionnaire compact.
- ▶ Decide on whether phrases will all be positive, all negative or mixed.

# Question and response format

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- ▶ ‘Yes’ and ‘No’ checkboxes
- ▶ Checkboxes that offer many options
- ▶ Rating scales
- ▶ Likert scales
- ▶ semantic scales
- ▶ 3, 5, 7 or more points?
- ▶ Open-ended responses

# Questionnaires should accommodate all possible answers:

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e.g., consider the question:

What brand of computer do you own ?

- ▶ A. Lenovo
- ▶ B. Apple

**What is the issue ?**

# Questionnaires should accommodate all possible answers:

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e.g., consider the question:

What brand of computer do you own ?

- ▶ A. Do not own a computer
- ▶ B. Lenovo
- ▶ C. Apple
- ▶ D. Autre

**Is there still an issue ?**

# Summary Creating a Good Questionnaire

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- ▶ Keep your questionnaire short. In fact, the shorter the better.
- ▶ Use simple and direct language. The questions must be clearly understood by the respondent.
- ▶ Begin with a few non-threatening and interesting items.
- ▶ Place the most important items in the first half of the questionnaire
- ▶ Leave adequate space for respondents to make comments.
- ▶ Perform iterative pre-tests and eliminate or replace questions that are hard to understand or lead to useless / unsatisfying results.
- ▶ Accommodate all answers

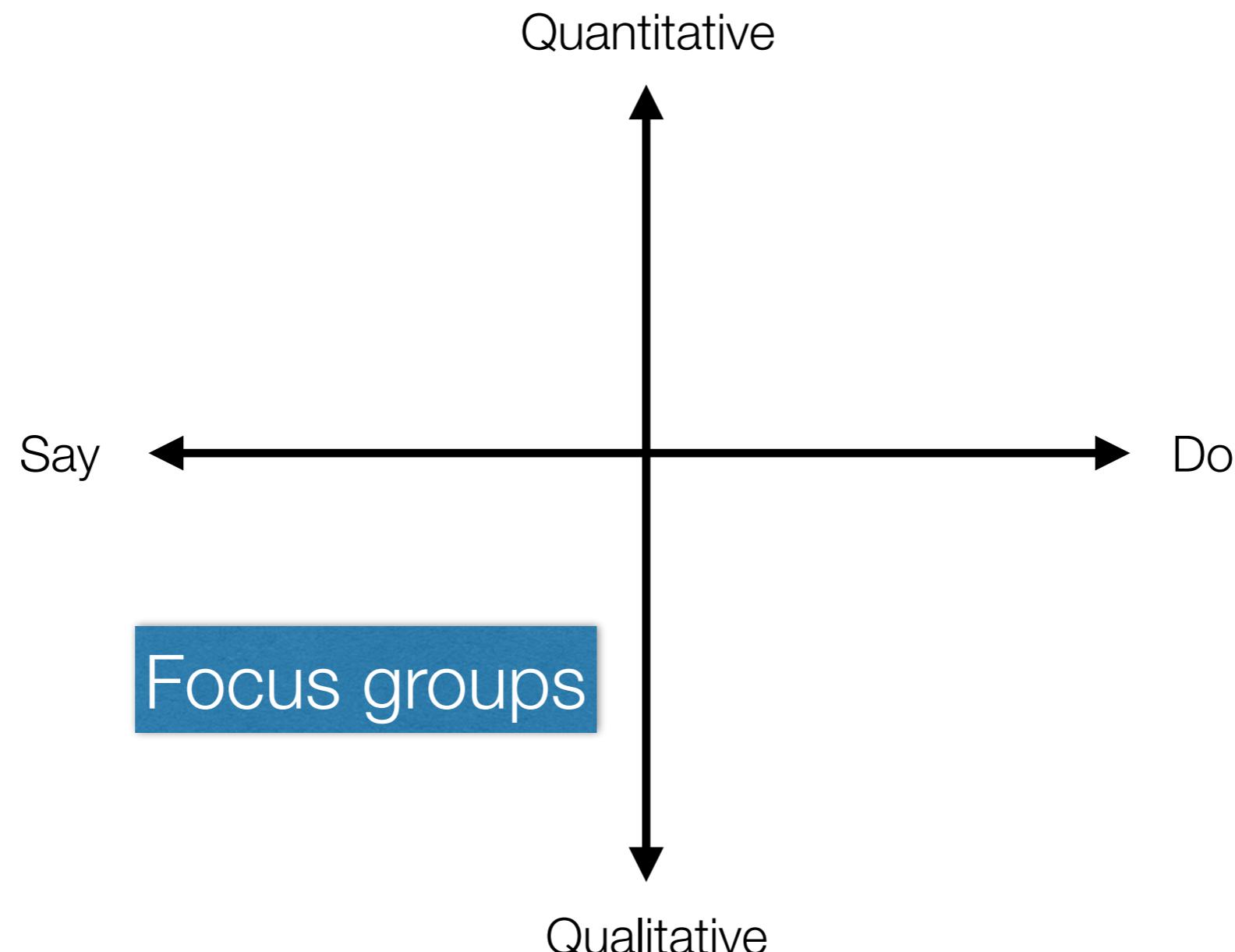
# Encouraging a good response

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- ▶ Make sure purpose of study is clear
- ▶ Promise anonymity
- ▶ Ensure questionnaire is well designed
- ▶ Offer a short version for those who do not have time to complete a long questionnaire
- ▶ If mailed, include a stamped addressed envelope
- ▶ Follow-up with emails, phone calls, letters
- ▶ Provide an incentive
- ▶ 40% response rate is high, 20% is often acceptable

# Focus Groups

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# Focus groups

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Gather 6 to 8 people

Focus on a theme

Gather indicators on what people think, their opinions  
feelings, perceptions, ideas...

# Pros & cons

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## Benefits

- ▶ A lot of (varied) information
- ▶ Details information (explanations)
- ▶ Ability to explore varied themes, with various levels of detail
- ▶ Quick and affordable

## Drawbacks

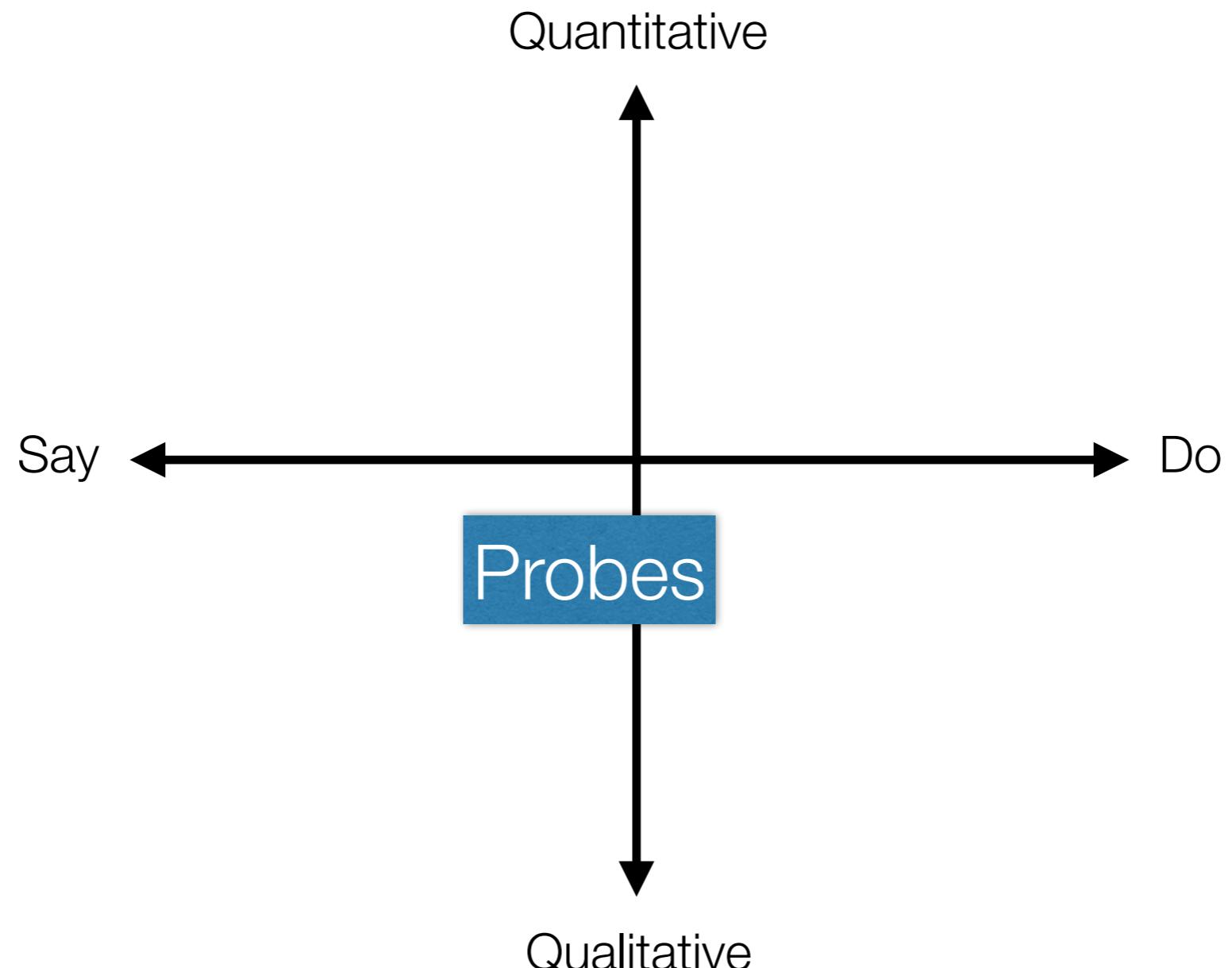
- ▶ Moderator can influence the results
- ▶ The quality of the information collected varies
- ▶ Discoveries are hard to generalize

*It's really hard to design products by focus groups.  
A lot of times, people don't know what they want  
until you show it to them*

Steve Jobs

# A wide variety of methods

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# Probes

## Cultural Probe: Final Package Materials

### Maps #1

To recognize dancer's life circle and future interests / goals

### Post-its #2

To provide an convenient/alternative way of recording thoughts/ideas

### Media Diary #3

To capture our participant's involvement with technology

### Camera #4

To understand participant's daily surroundings and their personal interests/values

### CD Discs #5

For our participants to input the songs they enjoy and as well input the videos of their performances



### Graffiti Posters #6

To further understand participant's identity and learning their writing styles

### Postcards #7

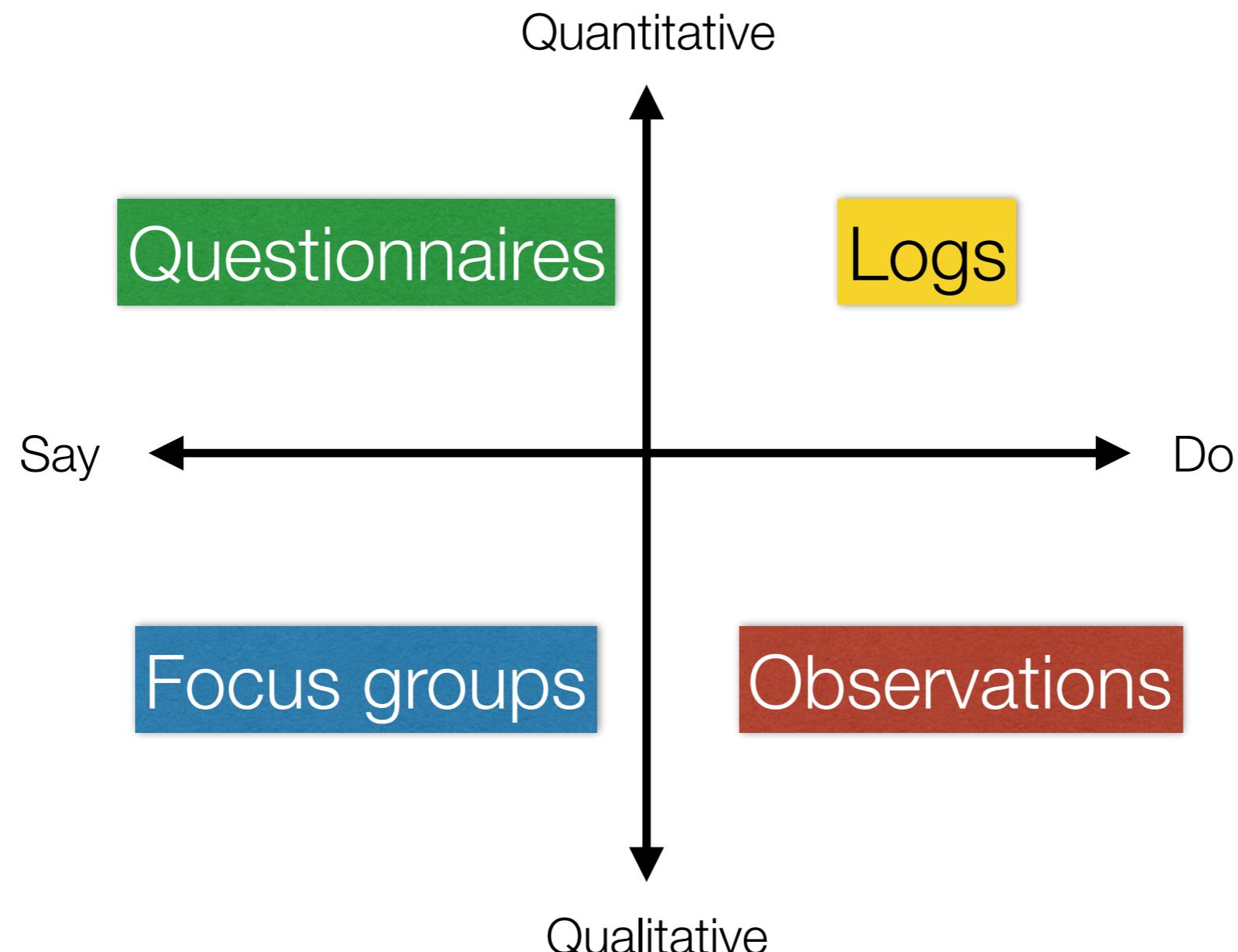
To understand our users by asking designed questions

### Instructions #8

A backup instructions for our participants as a reference for developing the probes

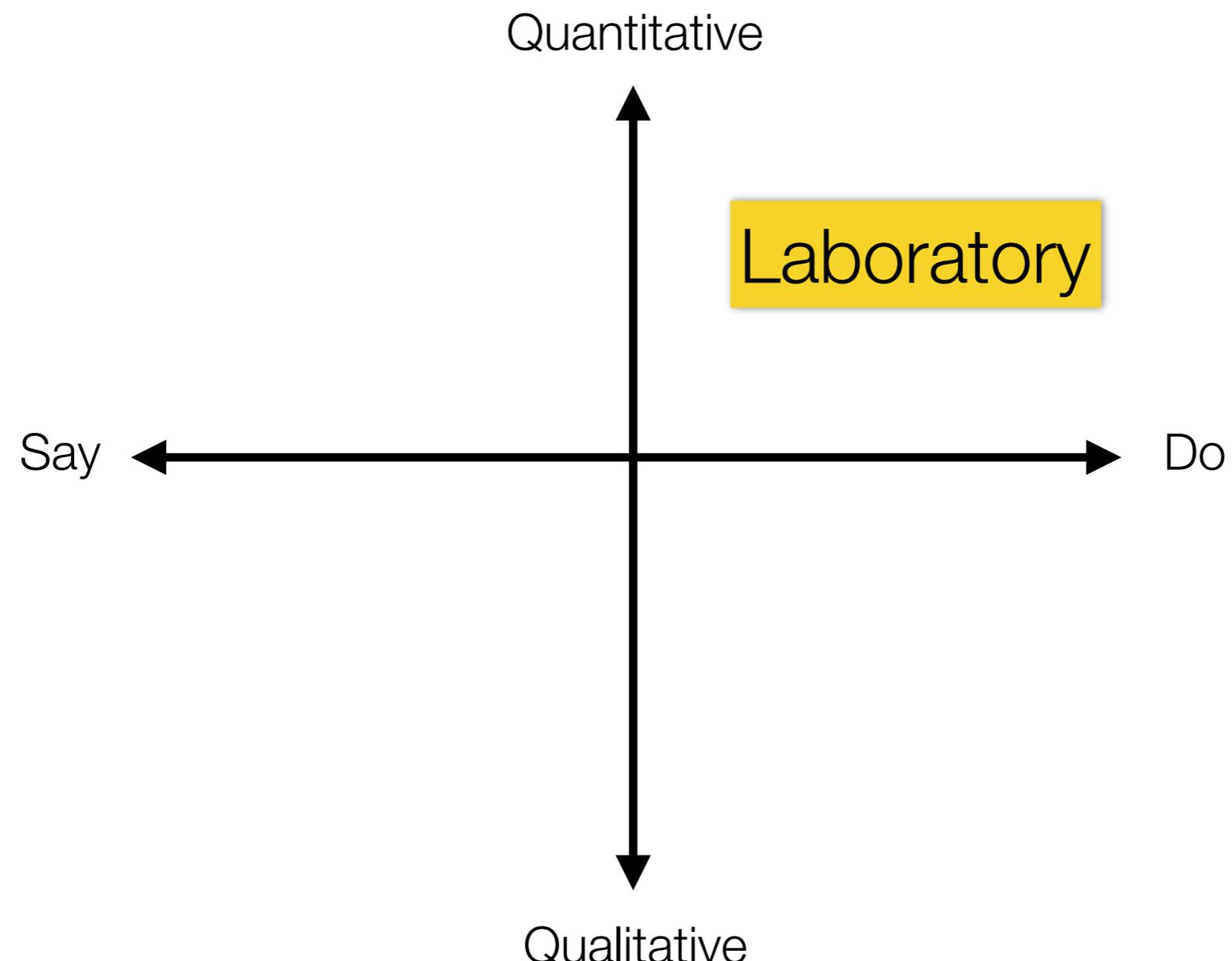
# A wide variety of methods

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# A wide range of methods

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# Laboratory study

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Control and replicability

But limited external validity  
i.e. whether observations  
in the lab will apply in  
“real” life



# On the cheap : Introspection

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Reflect on one's

- ▶ practices
- ▶ use of tools
- ▶ habits...



# Further reading

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- ▶ Mike Kuniavsky, Observing the User Experience
- ▶ Beyer and Holtzblatt, Contextual Design