

Query techniques and Focus Groups

Discovering what people want, like, dislike

Focus Groups



Focus Groups

Group discussions, lasting approx. one-two hours, chaired by moderator

Widely used in market research and new product design

THIS MODERN WORLD by TOM TOMORROW



When to use

Can collect opinions of proposed development *or* views on current practice

- Before new product design, good for collecting wish lists and requirements
- In design process, good for eliciting reaction to slogans, names, logos, colour schemes and so on
- Can be used for general usage questions, e.g. do you use Search Engine X?

When NOT to use

If you are looking for reliable detailed usability data because subjective opinion not enough - people can't recreate their practice.

During focus group, individuals normally don't have chance to explore or use system in earnest - usually via demo

How to do it (1)

- Recruit group, normally size = 5 to 8
- Must have experience of the topic under discussion
- Can use market research company to arrange sample and practical arrangements, or pre-existing group
- With existing group, beware hidden agendas, alliances, established pecking orders and so on

How to do it (2)

Usually best in familiar, comfortable surroundings, at times convenient to group.



Have refreshments available



How to do it (3)

Introduce members to each other.

Explain aims of the meeting and ground rules.



How to do it (4)

Should appear unscripted but moderator needs list of topics, at least.

Appoint notetaker if at all possible.



Need to manage skilfully - interviewer shouldn't say too much; everyone should feel they've had a chance to speak but nobody should feel pressurised; no single individual should dominate

How to do it (5)

Don't rely on a single group. Run another session - single group may not be representative

Could run Web, email or newsgroup discussion - though probably only get power users, not a sample of all users

Recording qualitative data

- Taking notes (implies note taker)
- Audio taping and write notes yourself soon after interview
- Video taping and write notes yourself soon after interview
- Transcripts of tapes - skilled job.
- **Check tapes, batteries etc.**

Analysing qualitative data (1)

- Find the main themes
 - Open coding
 - Systematic coding
 - Affinity diagramming (as in Contextual Design)
- Qualitative analysis tools such as Nvivo help with this
- Use quotes to represent them
- Could include how often said (code counts)

Analysing qualitative data (2)

- Open coding:
 - Decide on questions you want answers to
 - Go through all the notes, and add codes for different answers to a question

For example, for question “where do people keep their to-do list”, could use codes

“P=Paper”, “D=Diary”, “E=email programme”, etc.

Analysing qualitative data (3)

- Systematic coding:
 - Codes decided before data is gathered
 - Rest of process is same as for open coding
- Often good to let multiple people code and compare for consistency.
- Or use triangulation: use another method such as survey to verify that your findings are correct

Example: User Research in EU project Superhub (1)



Journey planning



Taxi sharing



Car pooling



Disruptive events



Business
travellers

42 Usage Scenarios investigated
44 Focus groups held
12 Interviews conducted
258 People consulted
14 Scenarios illustrated



Motivating Change



Logistics
companies



Tourists



Points of
interest



Impaired people



Transport
on Demand

Example: User Research in EU project Superhub (2)

Step 1. Decided on the user types

- First year:
 - Public transport users who commute
 - Public transport users who travel for leisure
 - Car drivers who commute
 - Car drivers who travel for leisure
 - Transport companies etc
- Second year:
 - Business travellers
 - Logistic companies
 - Tourists
 - Impaired people

Example: User Research in EU project Superhub (3)

- Planned to have 2 focus groups for each user type in each city (Barcelona, Helsinki, Milan)
- Centrally organized; we produced
 - Topic guides: what to discuss for how long (only known to facilitator not to participants)
 - Consent forms and information sheets
 - Result sheets
- Centrally analyzed
 - Common themes
 - What problems people experience
 - What they like/dislike, additional functionality desired

Strengths (1)

Synergy amongst group members can make discussions richer than individual interviews and give confidence to individuals

If used for eliciting requirements, individuals can fill in pieces of jigsaw they know about, e.g. of a company's processes seen from typist's viewpoint as well as managing director's

Strengths (2)

Economical in time used - gather users in one place

Can discuss events happening over long time span - difficult to observe

If used in requirements elicitation, can empower users and create good working relationship with designers

Weaknesses (1)

Depends crucially on good moderator

Can only cover a few topics in a focus group session

Can be overwhelming for some people

Weaknesses (2)

Can only discover what people **say** they do - not direct evidence as in observation

Can only discover what people **say** they want - participants may not be able to envisage what's proposed, so data may not be reliable

Focus Groups: Conclusion

A good way to generate user requirements (and maybe customer buy-in) for design of new product or redesign of existing product, so has place in user-centered design process – **but** don't rely on it to give reliable data on interface usability at a detailed level

Query Techniques: Questionnaires and Interviews

Use of Questionnaires

- For example, to find out:
 - the personality characteristics of a user
 - what previous knowledge/experience the user has
 - the attitudes a user may hold
 - what users (want to) do
 - whether the user is satisfied with a system
- Used as part of focus group, user test, or on its own

Questionnaires : types

Ways to deliver -

Interviewer: face to face, telephone

No interviewer: post, email, Web-based, social media, crowd sourcing site

Questionnaires: Pros and Cons

- Pros:
 - reach a large and widespread user group
 - less intimidating or embarrassing than other techniques
 - simple to administer
- Cons:
 - feedback is subjective
 - user's body language may not be visible
 - not flexible as questions are determined beforehand
 - mostly closed-questions so does not permit probing
 - respondent cannot seek clarification
 - response level (biased group?)

Questionnaires: respondents

- Selecting a user group (sampling)
- Use **personas** to guide recruitment
- Employ agency to find recruits
- Advertise locally or on mail groups, social media, websites, crowdsource sites
- Use convenience sample
- How many? Funds, time, likely response rate, coverage needed

Designing Questionnaires

- Decide what you want to find out and plan how you are going to analyse/use it
- Don't collect *useless* information
- Design the overall structure - use natural groupings and try to make questions flow
- Write individual questions and scoring mechanisms - careful with terminology, leading questions, unnecessary change of reply style, embarrassing questions
- Write opening and closing sections



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[Information Architect/UI Designer Essentials](#): A listby marc_macalua,
Information Architect
(12 item list)

Question types (1)

yes/no

Have you ever bought a CD from the Amazon Web site?

Yes ☐ No ☐

Checklist

Which if the following have you bought from a Web site? Tick all that apply.

Books	<input type="checkbox"/>	Software	<input type="checkbox"/>
CDs	<input type="checkbox"/>	Flowers	<input type="checkbox"/>
DVDs	<input type="checkbox"/>	Groceries	<input type="checkbox"/>

Question types (2)

Likert scale

How useful do you find Amazon's personal recommendations?

1 = not useful, 5 = very useful

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Multipoint

Amazon's personal recommendations are useful

Strongly agree ☐

Agree ☐

Neither agree nor disagree ☐

Disagree ☐

Strongly disagree ☐

Question types (3)

Ranked order

Place the following features in order according to how useful you find them, with most useful first, least useful last.

My personal recommendations

Book search

Reader reviews

Publisher's description

My wish list

The Page You Built

Also bought... list

Popular in ...

Question types (4)

Semantic differential scale

Rate the Amazon site on the scale below:

very quite neutral quite very

Useful	Useless
Easy to navigate	Difficult to navigate
Attractive	Ugly
Up to date	Out of date
Trustworthy	Untrustworthy
Fast	Slow

Question types (5)

Open question

Which 3 features of the Amazon website do you like most?

Which 3 features of the Amazon website do you think should be improved?

Developing a Questionnaire

- Once you have a draft, run some informal pilot tests in-house
- Redraft
- Run a pilot with target users – vital
- Also pilot analysing results!

Response Bias

- When the answers do not reflect the truth, we say the questionnaire has a *response bias*. This is caused by:
 - Communication Errors
 - the question and/or the response are ambiguous
 - Memory Errors
 - respondent can't remember
 - Deliberate Errors
 - respondent tries to create a “good” impression, or has some other motivation in giving an inaccurate response

Example: Mechanical Turk

- Amazon Mechanical Turk is a crowd sourcing site: ‘workers’ get paid to perform small tasks
- We used it for many questionnaires
- To get more reliable results:
 - English test (assesses English and whether paying attention)
 - High percentage approval rating (90%)
 - Could add “filler questions”, such as “Answer 2 if you read this”, to ensure attention is paid
- Can get high number of responses very rapidly

Interviews: Five stages

- Preparation
 - research on people/organisation; design questions
- Introduction
 - state purpose; establish rapport, confidentiality, anonymity
- Interview
 - Note: this is a two-way process
- Closure
 - orderly, there are important questions to address here
- Follow-up
 - document, feedback, categorise and analyse responses

Interviews: Pros and Cons

- Pros:
 - flexible, can vary to suit the context/interviewee
 - can explore subjective aspects, feelings, attitudes
 - body language of respondent is a vital source of information
 - can build rapport between interviewer and interviewee
- Cons:
 - expensive and time-consuming
 - difficult to categorise responses
 - skilled & knowledgeable interviewer required
 - personality and style of interviewer can influence outcome

Question Design (1): Open Questions

“What features do you most like in the system and why?”

– who/what/where/when/why/how

- Pros

- invite involvement, rich feedback, allows probing

- subjective responses explore feelings/attitudes

- Cons:

- dependent on respondent's ability to articulate feelings

- time-consuming

- difficult to categorise

Question Design (2): Closed Questions

Factual or simple yes/no response, or choices from shortlist

- scalar (see Questionnaires above)
- multiple-choice
- ranked
- Pros:
 - Easy to use, amenable for “automation” or use by others
- Cons:
 - underlying reasons behind responses are not explored

Question Design (3): Guidelines

- Be clear, focused, precise
- Don't use jargon
- Avoid bias
- Avoid emotion
- Avoid embarrassing and personal questions
- Don't ask two questions at the same time
- Always write the questions, and run pilot studies

Ethical Issues

For both focus groups and questionnaires:

- Participants should give consent and not be coerced
- Participants should be fully informed about the aims and methods of the study
- Any personal data collected should be with permission and should only be used for the current study

Ethical Issues (2)

- If participants are giving their time, they should be informed about what benefits (if any) they might receive in return.
- Clear records should be kept of the ethics-related procedures followed and of what happens to the data that are collected.
- There should be no suppression of data that conflicts with expectations when the results are reported.

Specifically for Focus Groups:

- Avoid pressurising participants to speak
- As there are several participants, confidentiality, especially handling of sensitive material, is an issue,

so:

- Make it clear in advance that material will be shared by others in group
- Participants asked to keep material confidential outside group
- Researchers must anonymise data from the group

Learning outcomes

By the end of this lecture you should be able to:

- Write a questionnaire
- Critique a given questionnaire (what is wrong with it, why, how to improve)
- Design a focus group
- Given a situation (e.g. something you want to find out) decide whether interview, focus group or questionnaire is better, and explain why
- Explain how these methods differ
- Use these methods in an appropriate ethical way