Understand Your Users: Exploratory Studies

Exploratory Study

Motivational system
- Goals and tasks ("need")
- Desirability ("want")
- Emotional charge ("fears", frustration, pleasure, etc.)

Contextual knowledge & beliefs
- A cognitive representation (understanding) of how something works / organised
- Based on previous experience & beliefs; defines reasoning

Cognitive (Mental) model
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There is a product
- True-Intent Studies
- Remote Unmoderated Usability Studies
- Intercept Surveys
- Clickstream Analysis

There is NO product
- Questionnaires
- Observations
- Interviews
- Diary/Camera Studies
- Participatory Design
- Ethnographic Field Studies
- Contextual inquiry
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- Questionnaires
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**Questionnaires**
- Predefined series of written questions
- Usually relatively large samples - fast and cheap method
- Often used remotely
- Better to keep within 20-25 questions

**Diary/Camera Studies**

**Participatory Design**

**Ethnographic Field Studies**

**Contextual inquiry**
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Survey questions

Closed-ended
- Multiple choice questions
- Matrix questions
- Scaled questions
  - Semantic Differential
  - Likert scale

Open-ended
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Survey questions

Closed-ended

Multiple choice questions

Matrix questions

Scaled questions

Semantic Differential

Likert scale

Example:

What color is your favorite ice-cream?

○ Red
○ Blue
○ White
○ Other: ______
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Survey questions

- Closed-ended
  - Multiple choice questions
  - Matrix questions
  - Scaled questions
    - Semantic Differential
    - Likert scale

Example:
Where do you usually eat the following food?

<table>
<thead>
<tr>
<th></th>
<th>Home</th>
<th>Work</th>
<th>School</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ice-cream</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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Survey questions

Closed-ended

Multiple choice questions
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Likert scale

Example:

How would you describe this ice-cream?

Tasty … … … … … … … … … … … … … Tasteless

Cheap … … … … … … … … … … … … … Expensive

Satisfying … … … … … … … … … … … … … Disappointing
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Survey questions

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Example:

Ice-cream is my favorite food at this restaurant:

Strongly Agree  Neutral  Strongly Disagree

- Typically 5, 7 or 9 point scale
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Survey questions

Example:

Any of us can sometimes unexpectedly run out of ice-cream. What do you usually do in such situations?

______________________________________
______________________________________
______________________________________
______________________________________

Open-ended

Unstructured questions

Explanation questions

Completion questions

Association questions
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Survey questions

Open-ended
- Unstructured questions
- Explanation questions
- Completion questions
- Association questions

Example:
In previous question you said you prefer salads. Please, explain why:

______________________________________
______________________________________
______________________________________
______________________________________
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Survey questions

Example:

My favorite taste of ice-cream is _________. I like it the most because it is _________. I usually eat it at (in)____________________ when I am __________________________.
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Survey questions

**Example:**

What is the first word that comes to mind when you see the following:

Summer, Tasty, Cold, Flavour

________________________________
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Survey questions

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Response Biases

Answer option order bias
(primacy and recency)
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Response Biases

Answer option order bias
(primacy and recency)

Question order bias

Acquiescence Bias
and Dissent Bias
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Response Biases

- Answer option order bias (primacy and recency)
- Question order bias
- Acquiescence Bias and Dissent Bias
- Extreme Responses
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- Observing participants performing some type of activity (ongoing behaviour)
- Can be controlled (lab) or naturalistic (field)
- Different possible levels of participation
- Written or video recording (requires consent!)
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- Naturalistic Observations
- Controlled Observations
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- Naturalistic Observations
  - Non-Participatory
  - Passive Participation
- Controlled Observations
  - Active Participation
  - Complete Participation
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**Observations**

- Record artifacts users manipulate
- Use codes and symbols
- Separate "says" and "does"
- Separate tasks, goals, motivations
- Separate actions and body language
- Separate observations and interpretations
- Keep your side notes separately
Understand Your Users: Exploratory Studies

- In depth discussion of the topic with a participant
- Usually one-on-one
- Written, audio, video recording options (requires consent!)

- Questionnaires
- Observations
- Interviews
- Diary/Camera Studies
- Participatory Design
- Ethnographic Field Studies
- Contextual inquiry
Interviews

Understand Your Users: Interview

- Structured
- Semi-Structured
- Narrative (Unstructured)
- Focus-Groups
Understand Your Users: Interview

**Structured**
- Same set of questions
- Standardized process
- Little freedom of expression
- Often self-reported

**Semi-Structured**
- List of guiding questions / topics
- Trajectories in a conversation
- Often preceded by observation
- One of the most popular

**Narrative (Unstructured)**
- Focus and goal guide the discussion
- Open-ended questions
- Freedom of expression & little control
- Popular in ethnography

**Focus - Groups**
- Semi-structured in a group
- Moderated
- 6-10 homogeneous strangers
- May permit discussion
- Emerged in the 1940s
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