Chapter 7: Data Gathering

Anna Loparev
Intro HCI
02/21/2013

Key Issues
Setting goals

Key Issues: Identifying Participants
Identifying Participants

**Random sampling**

http://starwars.wikia.com/wiki/Stormtrooper

**Stratified sampling**

http://starwars.wikia.com/wiki/Stormtrooper
http://kotaku.com/5650591/then-why-we-still-got-ewoks
Convenience sampling

http://starwars.wikia.com/wiki/Stormtrooper

Key Issues:
Relationship with Participants
Clear and professional

Informed consent form

- Confirm purpose
- Data use
- May withdraw
- OK to continue
Data gatherer (You)

- Analyze data
- Share info
- Publish reports

Data provider (User)

- Privacy
- Social security
- Child protection

http://starwars.wikia.com/wiki/Stormtrooper
Exception to informed consent

Incentives
Key Issues:
Triangulation

Data: Time

Data: Place

http://starwars.wikia.com/wiki/Stormtrooper

Data: People

http://starwars.wikia.com/wiki/Stormtrooper
http://kotaku.com/5650591/then-why-we-still-got-ewoks
Triangulation

Investigator

Theory

Perceptual

Cognitive

Motor
Methodology

Key Issues: Pilot Studies

http://starwars.wikia.com/wiki/Stormtrooper

http://www.collegefashion.net/inspiration/movie-inspiration-fashion-inspired-by-top-gun/
Data Recording

Exceptions

http://starwars.wikia.com/wiki/Stormtrooper
Data Recording: Types

Notes plus still camera
Audio plus still camera

Video
Data Recording:
Depends on...

http://starwars.wikia.com/wiki/Stormtrooper
Time


Sensitivity
Data Recording: Affects...

Detail
Intrusive

Which to use?

- Notes (hand-written)
- Notes (typed)
- Audio
- Photo
- Video
  - Fixed/Roving
  - Where to point
  - Impact of recording

https://en.wikipedia.org/wiki/Mario
Data gathering

Interviews

Interview Types
Interview Types

Unstructured

http://starwars.wikia.com/wiki/Stormtrooper

Structured

http://starwars.wikia.com/wiki/Stormtrooper
Semi-structured

Focus group
Interview Planning

Develop questions
Documents

Equipment
Structure

http://starwars.wikia.com/wiki/Stormtrooper

Interview planning

Time and place

Prepare interview

- Goal
- Way of recording
- Open ended Qs
- Closed Qs

https://en.wikipedia.org/wiki/Mario

Running the Interview
Comfortable and informed

http://starwars.wikia.com/wiki/Stormtrooper

Listen

http://starwars.wikia.com/wiki/Stormtrooper
Running the interview

Sympathy

http://starwars.wikia.com/wiki/Stormtrooper

Enjoy
1. Introductions

http://starwars.wikia.com/wiki/Stormtrooper

2. Warm-up
3. Main session

http://starwars.wikia.com/wiki/Stormtrooper

4. Cool-off
5. Closing session

Perform interview

1. Introduction
2. Warm-up
3. Main session
4. Cool-off
5. Closing session
Questionnaires

What and why

http://starwars.wikia.com/wiki/Stormtrooper,
Questionnaire Structure

Start with demographic info

http://starwars.wikia.com/wiki/Stormtrooper
http://kotaku.com/5650591/then-why-we-still-got-ewoks
Order

http://starwars.wikia.com/wiki/Stormtrooper

Different versions

http://www.superrobin.com/free-gadgets/free-laptops
Clear instructions

White space vs. compact
Questionnaires: Q and A Format

Check boxes and ranges

https://37signals.com/holiday/01_finders/by_age.html
Rating Scales: Likert

Answer these questions on a scale from 1 to 5, 5 is strongly agree, 1 is strongly disagree.

1. I felt like a strong math student at the start of the year.
2. I feel like a strong math student now.

Please circle the number that represents how you feel about the computer software you have been using

I am satisfied with it
Strongly Disagree --- 1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- Strongly Agree

It is simple to use
Strongly Disagree --- 1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- Strongly Agree


Rating Scales: Semantic differential

6. Please rate the Package Image

<table>
<thead>
<tr>
<th></th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Low Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High Quality</td>
</tr>
<tr>
<td>B</td>
<td>Economical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Luxurious</td>
</tr>
<tr>
<td>C</td>
<td>Masculine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Feminine</td>
</tr>
<tr>
<td>D</td>
<td>Flavorless</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Flavorful</td>
</tr>
</tbody>
</table>

Inaccessible

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

Rude

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

Caring

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

Rating Scales: Issues

Answer these questions on a scale from 1 to 5. 5 is strongly agree. 1 is strongly disagree.

1. I felt like a strong math student at the start of the year.
2. I feel like a strong math student now.

Questionnaire

- Check box
- Range
- Likert
- Semantic differential
Observation

Direct Observation in the Field
Participation

Direct observation in field

Data
Acceptance

http://starwars.wikia.com/wiki/Stormtrooper

Sensitive issues

http://starwars.wikia.com/wiki/Stormtrooper
Perspectives

Direct observation in field

Include everyone

Direct observation in field
Notes

Direct Observation in the Field: Frameworks

http://starwars.wikia.com/wiki/Stormtrooper
Simple example

http://starwars.wikia.com/wiki/Stormtrooper

Robson

http://starwars.wikia.com/wiki/Stormtrooper
Robson: Space

Direct observations in field: Frameworks

Robson: Actors

Direct observations in field: Frameworks

http://starwars.wikia.com/wiki/Stormtrooper
http://kotaku.com/5650591/then-why-we-still-got-ewoks
Robson: Activities

http://starwars.wikia.com/wiki/Stormtrooper

Robson: Objects

http://starwars.wikia.com/wiki/Stormtrooper
Robson: Acts

http://starwars.wikia.com/wiki/Stormtrooper

Robson: Events

http://starwars.wikia.com/wiki/Stormtrooper
Robson: Time


Robson: Goals

http://starwars.wikia.com/wiki/Stormtrooper
Robson: Feelings

Rogers and Bellotti

http://starwars.wikia.com/wiki/Stormtrooper
Ethnography

http://starwars.wikia.com/wiki/Stormtrooper

Other Methods
Direct observation in controlled environment

http://starwars.wikia.com/wiki/Stormtrooper

Indirect observation

http://starwars.wikia.com/wiki/Stormtrooper
Choosing and Combining Techniques

Example
Think about

• Focus
• Participants
• Nature of technique
• Available resources

• Interview
• Questionnaire
• Observation

https://en.wikipedia.org/wiki/Mario