

User Research: Data Gathering

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Professor Nathan J. McNeese

Aims

- Discuss how to plan and run a successful data gathering program.
- Enable you to plan and run an interview.
- Enable you to design a simple questionnaire.
- Enable you to plan and carry out an observation.

Five key issues

1. Setting goals

- Decide how to analyze data once collected

2. Identifying participants

- Decide who to gather data from

3. Relationship with participants

- Clear and professional
- Informed consent when appropriate

4. Triangulation

- Look at data from more than one perspective
- Collect more than one type of data, eg qualitative from experiments and qualitative from interviews

5. Pilot studies

- Small trial of main study

Data recording

Notes, audio, video, photographs can be used individually or in combination:

- Notes plus photographs
- Audio plus photographs
- Video

Different challenges and advantages with each combination

Interviews

- Unstructured - are not directed by a script. Rich but not replicable.
- Structured - are tightly scripted, often like a questionnaire. Replicable but may lack richness.
- Semi-structured - guided by a script but interesting issues can be explored in more depth. Can provide a good balance between richness and replicability.
- Focus groups – a group interview

Interview questions

- Two types:
 - ‘closed questions’ have a predetermined answer format, e.g.. ‘yes’ or ‘no’
 - ‘open questions’ do not have a predetermined format
- Closed questions are easier to analyze
- Avoid:
 - Long questions
 - Compound sentences - split them into two
 - Jargon and language that the interviewee may not understand
 - Leading questions that make assumptions e.g.. why do you like ...?
 - Unconscious biases e.g.. gender stereotypes
- Best interviewers LISTEN

Running the interview

- *Introduction* – introduce yourself, explain the goals of the interview, reassure about the ethical issues, ask to record, present the informed consent form.
- *Warm-up* – make first questions easy and non-threatening.
- *Main body* – present questions in a logical order
- *A cool-off period* – include a few easy questions to defuse tension at the end
- *Closure* – thank interviewee, signal the end, eg. switch recorder off.

Enriching the interview process

- Props - devices for prompting interviewee, e.g. use a prototype, scenario



Activity: Create Interview questions and Interview

- Work in dyads
- Each of you are going to create interview questions and then interview each other on the the topics of 1) what you did this past weekend 2) how is your semester going to this point. Choose 1 for each person to cover.
- Create 10 questions relating to your topic. Make sure you have questions that are follow-ups (semi-structured). (10 minutes)
- Interview each other for 10 minutes each (20 minutes).
- Then assess how you did as both an interviewer and interviewee.

Questionnaires (or surveys)

- Questions can be closed or open
- Closed questions are easier to analyze, and may be distributed and analyzed by computer
- Can be administered to large populations
- Disseminated by paper, email and the web
- Sampling can be a problem when the size of a population is unknown as is common online evaluation

Questionnaire design

- The impact of a question can be influenced by question order.
- You may 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.
- Avoid very long questionnaires
- Decide on whether phrases will all be positive, all negative or mixed.

Question and response format

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

Website User Survey

1. The website has a user friendly interface.



2. The website is easy to navigate.



3. The website's pages generally have good images.



4. The website allows users to upload pictures easily.



5. The website has a pleasing color scheme.



Encouraging a good response

- 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 good, 20% is often acceptable

Advantages of online questionnaires

- Relatively easy and quick to distribute
- Responses are usually received quickly
- No copying and postage costs
- Data can be collected in database for analysis
- Time required for data analysis is reduced
- Errors can be corrected easily

Example of an online questionnaire

World Summit on the Information Society - Microsoft Internet Explorer

Address: <http://www.itu.int/wsis/stocktaking/scripts/q.asp>

D. Internationally-agreed development goals outlined in the Millennium Declaration :

Is this activity relevant to achieving the MDGs listed below? (see www.un.org/millenniumgoals/ and the targets for each goal) ☒ Yes ☐ No

If yes, please tick all goals that apply

- ☐ 1. Eradicate poverty and hunger
- ☐ 2. Achieve Universal Primary Education
- ☐ 3. Promote gender equality & empower women
- ☒ 4. Reduce child mortality
- ☐ 5. Improve maternal health
- ☐ 6. Combat HIV/AIDS, Malaria and other diseases
- ☐ 7. Ensure environmental sustainability
- ☐ 8. Develop a global partnership for development

E. More Information :

Please provide a website for this activity

Website (URL) :

F. Geographical Coverage* :

Please tick a box to indicate the geographical coverage

☐ Local ☐ National ☐ Regional ☒ International

Please specify coverage :

G. Timescale* :

Please tick a box to indicate the timescale of the activity

☐ Completed ☐ Planned for future ☐ Ongoing

Specify dates using the format day/month/year (dd/mm/yyyy) :

From: To:

H. Activity Type* :

Please tick one or more boxes to indicate the type of activity described above

☐ Project ☐ Programme ☐ WSIS Thematic Meeting ☐ Conference ☐ Publication ☐ Training initiative

☐ Guidelines ☐ Tool-kit ☐ Website ☐ Database

Other (please specify) :

Figure 7.8 An excerpt from a web-based questionnaire showing check boxes, radio buttons, and pull-down menus

Problems with questionnaires

- Useful if used to triangulate data
- Subjective responses
- Not always representative of true cognition or perception

Activity: Create a Questionnaire

- 15 questions for a user on evaluating a smart phone
- Questions may range in context covered but should be on 5 point Likert survey
- When questionnaire is completed go over it with someone else and discuss what was good/bad about the questions presented.
- Total of 20-25 minutes.

Reading for next class...

251-274