How to Interview – Paul Saulnier

Background

An interview is a situation where a person, referred to as the interviewer, reads questions to a respondent, and then records the answers.

- fairly labour intensive
- requires large amounts of usability staff time since other people need to be present with the user to ask questions.
- Interviews may be conducted over the phone, but normally in usability typically involve the interview travelling to the user's location.
- Therefore, interviews are subject to scheduling constraints, but they also get fairly high response rates.

Use in Usability

- Different types of interviews are of course used at various stages of the development, evaluation, and research cycles.
- My focus will be on conducting *usability* interviews which themselves are conducted throughout the development process in ideal circumstances, though hopefully not all near the end.

Benefits of Interviews

- Interviews are flexible since the interviewer can explain difficult questions in depth, and rephrase any misunderstood questions.
- Interviews can free-form since the interviewer can recognize and take advantage of opportunities to ask follow-up questions that are not in the script. The responses to these unplanned questions provide quotes that can enhance the message of related studies and presentations.
- Interviews also produce immediate results, unlike questionnaires which may be subject to mailing, response and coding delays.

Comparison to Surveys

Interviewing is closely related to surveys. However, unlike surveys that tend to provide quantitative data for large numbers of people, interviews tend to yield more qualitative results and are limited to smaller numbers of people.

During an interview, questions can be rephrased if they seem to be misunderstood whereas surveys must stand on their own. This advantage of interviews likely reduces the amount of blank or incorrect responses due to misunderstanding.

Why Interview?

- Interviews provide insight into the preferences and opinions of users regarding a system or prototype. Checking these opinions can save a lot of time by ensuring that bad decisions are not made in the design of key features or ones that are unnecessary.
- They also allow us to study many aspects of usability by simply asking the users. This is especially true for subject things such as user satisfaction and anxiety, both things that are difficult to measure objectively in software development projects.
- Interviews are also well suited for situations where you do not know yet what you are looking for. The interviewer can tailor the interview to the situation on the fly.

Types of Interviews

- Structured – Predetermined questions asked in a set way. No individual attitudes.
- Semi-structured draws upon bank of questions when the user is quiet or digresses
- Flexible – Generally some set topics, but no set order. Interviewer is free to follow replies and find out about personal attitudes.
- Prompted interviewing is used to draw out more information ("can you tell me more about that?") An alternate design or equipment may be used to elicit feedback.
- Card sorting – A small number of cards are used to form answers to questions which are then recorded on a special sheet that can be analyzed by a computer. Similar to a special multiple choice survey
- Twenty questions – Each with yes or no answers

Both of the last methods could perhaps be more efficiently handled with a questionnaire. A trade-off between interview types exists, easier for interviewer vs. picking up relevant issues.

Critical Incidents

There are often times when a system's performance is notable for being particularly good or bad when the user is working with it. Knowing about these incidents by asking users to recall them can be especially useful, since it allows worst-case incidents to be avoided in the future, and also to reinforce the benefits of design elements leading to the best-case incidents.

Guidelines for Interviewing

Exercise with one student: Do you like this powerful, innovative interface I just developed?

Questions should be open ended and neutral, requiring full responses. A yes or no response should not be possible. For example, you may ask "what do you think of this feature?" instead of "did you like this feature?"

Exercise with one student: A threatening atmosphere is created where the student will be asked about their homework habits so as to identify "slacking students" that Saul can remove from the course. Recording will be done using a camera and a web cam, which will be "streamed" online to interested viewers. Ask how much time is spent studying every week.

Rapport is important in interviews in order to get some sensitive information, such as criticism which some users may view as their own fault You need to create a friendly, unthreatening atmosphere by being casual while also being in control and channelling the discussion as necessary. Users often feel compelled to give the answers that they feel they are *supposed* to give. For example, if you ask a user how long to spent looking for an answer in the manual, they may not wish to admit they didn't even look and instead estimate a plausible amount of time.

The interviewer should stay neutral during the interview, and not agree or disagree as much as possible or ask leading questions.

*Exercise with one student: What do you think of Calgary Transit's **horrible** reliability?*

Additionally, the interviewer should not try to explain to the user why the system behaved in a certain way, even if there are lots of complaints.

Exercise with John Harris (pre-arranged volunteer): Introduce him as a participant of a study regarding the academic life of a graduate student. Collection of information is done through a flexible interview, and photographs as follows:

- *First photo shows John hard at work at his desk with hands-on robot materials. John is asked what he is working on*
- *Second photo is taken without John's notice. He is asked what kinds of mail he receives at school.*
- *Third photo is taken from a distance without John's notice at Mac Hall. John is asked what kind of food he is ordering.*
- *Fourth photo (screenshot) is John's internet history from school. John is asked if there is any explanation for the apparent trend*

When interviews occur as a follow-up, you can draw upon data from logging of the user's activity, and ask the user about any apparent trends. This should be done with sensitivity though to avoid a "big brother is watching" atmosphere.

Limitations of Interviews

Outside of measuring user satisfaction, interviews are indirect methods of measuring usability since they do not study the user interface itself, but rather the user's opinion of it.

Exercise: Volunteer performs a task in Excel with steps given in a manual (attached on separate page), and then asked to perform it without the manual.

Data that details the actual behaviour of people using a software system should take precedence over what people *think* they can do as said in interviews. For example, a person may read instructions for using a certain feature and claim they fully understand it. However, in one study, only 50% of users in this situation actually performed correctly.

Class Exercise

There are 12 students (excluding me) in the class or 6 pairs. The handouts for each group are on separate pages which will be provided on class day.

Recommended Readings

None

Bibliography

Nielsen, J. (1993) Usability Engineering, p273-4, Academic Press.

Preece, J. et. al., (1994) Human Computer Interaction, p628-638, Addison-Wesley.

Class Exercise

Interview type: structured

Ask the following questions in order without deviation.

- Where do you shop for groceries?
- What do you buy most often?
- How do you get to the grocery store?
- What type of check out do you prefer?

Record the responses below.

Class Exercise

Interview type: semi-structured

Start by asking the first question and keep asking questions as necessary to understand the person's grocery shopping habits. If the person has nothing more to say, move onto the next question.

- Where do you shop for groceries?
- What do you buy most often?
- How do you get to the grocery store?
- What type of check out do you prefer?

Record the responses below.

Class Exercise

Interview type: flexible

Ask the following questions in *any* order and feel free to add ones or skip these ones.

- Where do you shop for groceries?
- What do you buy most often?
- How do you get to the grocery store?
- What type of check out do you prefer?

Record the responses below.

Class Exercise

Interview type: prompted

Ask these questions to get a sense about how the user buys groceries and what problems there are with the current systems (such as type of checkouts). What frustrations does the person have with grocery shopping? Suggest alternate methods that could be available and how that would affect the person.

- Where do you shop for groceries?
- What do you buy most often?
- How do you get to the grocery store?
- What type of check out do you prefer?

Record the responses below.

Class Exercise

Interview type: card sorting

The person's card choices are:

- Yes
- No
- Maybe

- This is a stupid question
- Almost, but I do it a different way
- Usually, but not every time

Ask several questions that can be answered with these card choices. Normally, an interviewer would likely have a complete set, but for the purposes of this exercise, here are some to start with:

- Do you shop for groceries regularly?
- Do you take a bus to the store?
- Do you use self-serve check outs?
- Is the store conveniently designed for shopping?
- Do you ever see Saul at the grocery store?
- What does Saul buy?

Record the most important responses below.

Class Exercise

Interview type: twenty questions

For the purpose of this exercise, make up about 5-10 **yes or no** response questions relating to a person's grocery shopping habits and experience.

You can start by asking these questions and then ask the ones you made up:

- Do you shop for groceries regularly?
- Do you take a bus to the store?
- Do you use self-serve check outs?
- Is the store conveniently designed for shopping?
- Do you ever see Saul at the grocery store?

Record the most important responses below.

Yes	No
Maybe	This is a stupid question
Almost, but I do it a different way	Usually, but not every time

How to Do Something in Excel

These instructions will guide you through creating a pie chart for a given set of population data.

1. Open the spreadsheet.
2. Switch to the sheet 3 at the bottom.
3. Sort the data in ascending order
4. Select all of the data
5. Click Insert Chart
6. Click the 3D pie chart
7. Resize the chart for best appearance