

Questions?

- Project #4
- HW #7
 - Zip and email ([CMSC434-HW#7])

Simple observation method

- Evaluator observes users interacting
 - Sometime behind a half-silvered mirror
- Drawback
 - No insight into the user decision process or attitude

The think aloud method

- Subjects are asked to say what they are thinking/doing
 - What they believe is happening
 - What they are trying to do
 - Why they took an action
- Widely used in industry
- Drawbacks
 - Awkward/uncomfortable for subject (thinking aloud is not normal!)
 - “Thinking” about it may alter the way people perform their task
 - Hard to talk when they are concentrating on problem

The constructive interaction method

- Two people work together on a task
 - Normal conversation between the two users is monitored
 - *removes awkwardness of think-aloud*
 - Variant: Co-discovery learning
 - *Use semi-knowledgeable “coach” and naive subject together*
 - *Make naive subject use the interface*
- Drawback
 - Need a good team

Debriefing

- Post-observation interviews
 - Questions from your notes
 - Questions from users diary
 - Questions from a video footage
- Pros and Cons
 - Avoids erroneous reconstruction
 - *Provide many constructive suggestions*
 - Time consuming
 - *But extremely valuable*

Interviews

- Method
 - Pick the right population
 - *Individual or group discussion*
 - Be prepared
 - *Plan a set of central questions*
 - Probe more deeply on interesting issues as they arise
 - *Focus on goals not technology*
 - *Find the root of the problem*
- Pros and cons
 - Very good at directing next design phase
 - *Provide many constructive suggestions*
 - Subjective
 - *Do not ask leading questions*
 - Time consuming

Questionnaires and surveys I

- Method
 - Pick the population
 - *Demographics and sample size*
 - Between 50 and 1000 subject
 - Establish the purpose of the questionnaire
 - *What information is sought?*
 - *How would you analyze the results?*
 - Establish the means of deliver/collection
 - *On-line*
 - *Direct interaction with users*
 - Walking in the street
 - Post-user testing
 - *Surface mail*
 - including a pre-addressed reply envelope gives far better response

Questionnaires and surveys II

- Method
 - Design the questionnaire
 - *Don't forget to debug it!*
 - Deliver
 - Collect and analyze the data
 - Establish the main findings
- Example
 - Brainstorming tool

Closed questions

- Supply possible answers

Characters on the computer screen are:

hard to read			easy to read	
1	2	3	4	5

- Easy to analyze
- Make it more difficult for respondents
- Be sure to be specific

Do you use computers at work:

☐ often

☐ sometimes

☐ rarely

vs

Do you use computers at work:

☐ more than 4 hrs

☐ between 1 and 4 hrs

☐ less than 1 hr

Style of closed question: Scalar

Characters on the computer screen are:

hard to read easy to read

1 2 3 4 5

- Be sure to pick odd numbers of choice
 - *Often between 5 and 7*

Style of closed question: Multi-choice

Which types of software have you used? (tick all that apply)

☐ word processor

☐ data base

☐ spreadsheet

☐ compiler

– Can be exclusive on inclusive

Style of closed question: Ranked choice

Rank the usefulness of these methods of issuing a command

(1 most useful, 2 next most useful..., 0 if not used)

__2__ command line

__1__ menu selection

__3__ control key accelerator

– Helpful to understand users preference

Open ended questions

- The user answers in his/her own words

Can you suggest any improvements to the interfaces?

 - Good for general information
 - Difficult to analyze
 - Can complement closed questions

Questionnaires and surveys

- Pros and cons
 - Preparation is expensive
 - *Need to design and debug the questionnaire*
 - Can reach a large population
 - *But often a low return rate*
 - As good as the questions asked
 - Data collection can be tedious
 - *Use automatic forms for large volume*
- Example:
 - Questionnaire for User Interface Satisfaction
 - *See reading*

Qualitative approaches outcome

- High level effects
 - Task flow problems
 - Task description problems
 - Contextual findings
 - *Conflict with social pattern,...*
 - *Two hands needed but only one available*
- Pros and Cons
 - Apply to a real situation
 - *Good external validity*
 - Difficult to generalize
 - *Poor control of independent variables*
 - Often subjective data



PSP Questionnaire

- Population?
- Distribution?
- Your main survey goal?
 - At most 10 questions