Chapter 10
Observers

Introduction

*If a tree falls in the forest and no one is there to hear it, does it make a sound?*

*If a usability test is conducted and no one observes it, does it still provide value?*

- Author says “no”
  - Goal of usability testing is to get information from the user about how to make the product better and deliver that information to the people who can act upon it
  - Fast and efficient means to achieve this goal is to have product team members observe the usability test
Benefits of In-Room Observers

- Users feel respected and listened to
- Observers pay closer attention
- Observers may ask more questions
- The facilitator can observe the observers
- There are no hidden watchers

Concerns about In-Room Observers

- Disruptive observer behavior
  - Interrupt to help user
  - Defend the design
  - Expressing dismay when the user doesn’t get it

✓ Observers can be trusted to behave appropriately
✓ Need to be taught about the effect of their behavior on users
Concerns about In-Room Observers

- Changing user behavior
  - Inhibit user’s willingness to explore
  - Less forthcoming with criticism

- Effect due to observers can’t be eliminated
- Properly briefed users often willing to give feedback

Concerns about In-Room Observers

- User stress
  - Feel uncomfortable being under close scrutiny especially when they get stuck

- Base decision on benefits vs. risks
- Understand personalities of individuals involved and your own comfort level
From the Field
In-Room Observer War Stories

**Anecdote**

"I remember one unfortunate incident. One of the observers was a technical documentation person who had written the installation manual for a product whose installation we were testing. He got very frustrated that the users were having trouble, but were not using the manual. At one point he said loudly and angrily, 'But they’re not even using the manual!' The users felt bad and started using the manual (obviously a departure from their natural behavior)."

*Betsy Comstock, Polycom*

**My Comments**

This observer hadn’t been told that it’s possible to gather data about what should go in the manual without having the users actually use it. I also would have discussed the “game plan” with him to get his agreement on when/if users would specifically be asked to use the manual.

And Betsy concurs: "I learned to more carefully instruct the observers about the purposes of the testing, how to behave during a session, and what their expectations should be about the use of the data."

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From the Field
In-Room Observer War Stories

"A couple of years ago, one of the stakeholders insisted on being in the room while the user testing took place. The test team didn’t think it was a good idea, and we did caution the person not to interrupt what was going on and not to react to anything that happened. During one of the tests, a user hesitated and then chose an option that we hadn’t anticipated. The facilitator was waiting to see what happened next. The stakeholder got up, strode across the room and informed the user, ‘That’s not how it’s done—here’s how it’s done’ and proceeded to demonstrate the interaction as we had designed it."

*Professor Roslee Wolfe, DePaul University*

**Here’s my favorite line for preventing observers from helping:** "Once you start explaining the interface, you no longer have a usability test but a very expensive training session."

And this observer learned this. As Roslee reports, “To the stakeholder’s credit, this person has since embraced our efforts after we explained the value of letting a user struggle. Now the person is able to be in the room and observe without interrupting the test. As a bonus, this person now takes excellent notes.”
From the Field
In-Room Observer War Stories

“I often conduct usability studies with observers in the room. One day we were testing a feature that ‘Joe’ had put together. The participant was running into all the same problems as the previous participants. At some point, Joe just couldn’t take the fact that people didn’t know how to use his feature at all. He stood up, pointed at the participant, and started yelling, saying that he was too stupid to use our software or to have the job he was in. I was finally able to get Joe to sit down and be quiet and work on calming down the participant and building his ego back up. In the end, everything was fine but it was an eye opener for me on what can happen during a study like that. (Yes, Joe had been bawled that he wasn’t allowed to talk.) The participant is still a customer, luckily.”

Anonymous

This story underlines how stressful usability testing can be for the observers. Part of the facilitator’s responsibility includes not making the observers feel picked on. After seeing the same issues a few times, I might have asked Joe if we had enough data from that task and then substituted a different one.

Although Joe’s frustration is understandable, his means of expressing it is extreme—I’ve worked with hundreds of observers and never seen behavior like this. Joe may have had an anger management problem or otherwise lacked the social skills to relate well to people. If I knew there was a “Joe” on the team, I would ask some of the observers sit in another room and tactfully suggest to Joe that he might find it less frustrating to observe from afar.

The Rules

- Stay for the Entire Test
  - Goal - users forget that anyone else is in the room

- People constantly coming in and out is distracting

- Users may get the mistaken impression that you’re leaving because they’ve done something wrong (like walking out in the middle of a movie)

- While you are observing a test, you are not available for any interruption short of an emergency

- Please turn off cell phones and pagers!
The Rules

- **Remain Silent While the Users Are Working**
  - Usability testing gives you a whole new perspective on the interface
  - You may notice a problem so surprising that you are tempted to laugh or exclaim out loud
    - Users might think you are laughing at them
    - Please do your best to keep as quiet as possible
  - The facilitator will give you opportunities to ask questions after each task and at the end of the test
    - Something to tell/ask that truly can’t wait, pass a note to the facilitator
  - Exception: If a user intentionally says something funny, it’s okay to laugh!

- **Be Conscious of Your Body Language**
  - Although most usability tests are interesting, not every moment will be fascinating
  - If something is happening that isn’t of interest to you but may be to others, sit quietly without fidgeting
  - If you already thoroughly understand the issue that the users are stuck on and would like to see them move on to the next task, pass a note to the facilitator
The Rules

- Don’t Reveal How Many Tasks We Have
  - We may well run out of time before users finish all the tasks
  - If users get stuck on a task, that means that there is a wealth of information we should be fervently taking notes on
  - It is often more useful to explore an area of difficulty in detail rather than try to “get through” all the tasks
  - Facilitator will keep an eye on the clock so that we can cover as many of the important areas as possible

- No Helping
  - Likely that users will have problems using the interface, normal to feel a temptation to help
    - Please don’t
  - Try to understand why it was that the user got stuck or went down the wrong path
  - Facilitator’s role to get users back on track if they get really stuck
  - If the facilitator poses a question during the test, he or she is asking the users, not you—please don’t answer unless the facilitator specifically directs a question to you
The Rules

- Avoid “Design Questions”
  - You will have an opportunity to ask questions after each task
  - Don’t ask questions that ask the user their opinions about how to design aspects of the application
    - “Where would you like to see these navigation buttons?”
    - Takes a lot of time to answer and produce only limited results
  - Focus on trying to understand the problem
    - We’ll come up with solutions later, outside the test

The Rules

- Respect Participants and the Confidentiality of Their Data
  - Promised the participants that their participation is confidential
  - Do not include their names in any reports or other communication such as email
  - Refrain from discussing them by name outside the test setting
  - Do not make negative comments about people—there is always a risk that a derogatory comment could be overheard or otherwise make its way back to the user.
The Rules
How to Explain the Rules to Observers

- Provide a worst-case scenario
  - Following slide

- Observer inclined to think about consequences if they are able to empathize with the user

- Have observers sign a copy of the rules once they’ve read and understood them

From the Field
The User Who Cried

“I once had a user cry during a usability test. This was years ago, before I had much experience with usability testing. Basically, it happened because we’d done just about everything wrong. When our scheduled user didn’t show up, someone grabbed an employee to fill in, without explaining what the session was about – that was the first mistake. Turns out it was this woman’s first day on the job, and we figured she’d be a good candidate because she knew absolutely nothing about the product. Not only did she know nothing about the product, but it wasn’t even in her area of expertise — she didn’t fit the user profile at all. That was the second mistake. There were a bunch of observers sitting in the room who hadn’t been briefed on how to behave (third mistake), including the woman’s manager (fourth mistake). And last but not least, we hadn’t done a rehearsal beforehand, so we didn’t realize that the first task we wanted the user to do was, in fact, impossible.

Once the user started running into difficulty, everyone expect for her realized that the task was ridiculous, and they all started laughing at their own stupidity. Unfortunately, the user thought they were laughing at her and she stared crying. We all felt horrible, and after that I took the time to hand out a written set of rules and go over them with every observer before they’re allowed to sit in the room. Thankfully, nothing like this has ever happened to me again.”

Jared M. Spool, User Interface Engineering
The Rules
Observers Are People Too

- Testing nerve-wracking for observers too
- Acknowledge test can be frustrating and stressful
- Facilitator not there to beat up the interface, but shed light on what’s inside the users’ heads

The Rules
When to Brief Observers

- When to brief observers
  - Depends on observer experience
  - Don’t want to single out an observer
- How to brief observers
  - Before every test
  - Two 10 minute briefing on the first day (before first test, after lunch)
Preparing the Users

- Inappropriate to lead the user into a roomful of observers they were not expected

- Observers mentioned multiple times
  - During recruitment
  - In the informed consent
  - During the pretest briefing given by the facilitator

- Provide users with opportunity to opt out or ask more questions

Observer-User Interactions: Questions to Avoid

- Reveals the answer
  - “Was it clear to you that Purge would delete all files?”
  - Instead, “What do you think Purge would do?” and “What did it do?”

- Belongs in a focus group
  - “How can we make this better for you?”
  - “How can we sell this to you?”
  - Users react differently when they think you are trying to sell something and won’t be as honest or forthcoming with opinions

- Asks users to imagine
  - “What if we did X and Y? Would that be better?”
  - What you imagine may differ from what a user imagines, provide sample
  - To a user sounds like, “if we make it better, you like it more?” Answer is always yes

- Asks users to explain their cognitive process
  - “Did you click on that button because it was yellow?”
  - People bad a explaining behavior
  - Want to please so make up a reason after the fact that might have nothing to do with reality
Chapter 11

Data: Capturing, Prioritizing, and Communicating

Introduction

- Heart of usability testing is the data
  - How to capture data?
  - What to do with data afterwards?
Capturing the Data (Note-Taking)

- All observers are asked to take notes
  - Capture as much information as possible
  - Help to focus observers on what the users are doing
  - Used in debriefing meetings

Capturing the Data (Note-Taking)

What Observers Should Look For

- Give each observer a copy of tasks
  - Help observer understand the purpose of each task
  - Indicate issues observer should be looking for (encountered in the walk through)
  - May provide individual observers with specific assignments

- In general, what to look for?
  - Cases where users are confused
  - Don’t understand a term
  - Misconstrue a concept
  - User quotes
  - Anything that surprises you
  - Things that worked well (don’t waste time re-designing)
Capturing the Data (Note-Taking)
Observation, Inference, and Opinion

- Important to record data in a form that won’t be subject to contentious debate later

- Natural to filter information through our own set of ideas and prejudices
  - This is subjective and now we have an opinion, not data

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Capturing the Data (Note-Taking)
Observation, Inference, and Opinion

- **Observation**
  - Objective factual statement of something the user said or did
  - What, when, and how of the action
  - Two people watching the same test should theoretically walk away with the same set of observations

- **Inference**
  - Conclusion based on some observations and possibly some assumptions
  - Why something happened, the causes of problems or anything that goes on inside the user’s head

- **Opinion**
  - Something you think should be done about your inferences and observations

- “User chose Landscape orientation.”
- “User said, ‘I can’t tell what it did.’”
- “User is lost.”
- “This dialog box is confusing.”
- “He likes this version better.”
- “Search results should be sorted by increasing price.”
- “We need to show an example.”
Capturing the Data (Note-Taking)

Taking Notes

- Each observer has their own way of taking notes
- Laptop vs. Hand-writing
  - Whatever is comfortable
- Capturing user quotes
  - User’s voice speak louder than the facilitator/observer
  - Tape recorder can be good backup
  - Denote which are user quotes versus your thoughts
- Include context
  - Captured good quotes but after time have no idea what the user was talking about
  - Track what’s on screen, what facilitator has said, spontaneous comment

Capturing the Data (Note-Taking)

Example Test Observations from a Travel Web Site

**Observation (from my notes)**

Next trip he’s taking? Going to Chicago in September for a wedding in Barrington. A friend has told him a particular place – Amerisuites. What factors would he consider? Says he prefers a pool. Want a restaurant since he’s not going to have a car. Shuttle service to the airport also would be good. I ask about price: “I like to be under $100, unless I’m on vacation.”

Clicks NW suburbs. “It gave me a list of 43 properties, hotels in the northwest region of Illinois. Since I know I’m going to the Amerisuites, “I’ll probably do a search off the first page.” He backs up to try that approach.

**Discussion**

This is the sort of speech I tend to paraphrase – the factors the user is listing give us some background on how he’ll approach this task, but in this case his exact words aren’t crucial.

Saying the user backs up is an observation; the reason is an inference. In this case the user’s subsequent actions happened to confirm it, but before the fact it can only be an inference.
Capturing the Data (Note-Taking)
Example Test Observations from a Travel Web Site

Observation (from my notes)
Types barrinton in city. Hotel name – amerisuites. “That would be a problem if I don’t know how to spell it.” he knows the exact dates of his trip, enters them in the search.

No matches found. Says he thinks he spelled amerisuites wrong … or maybe it’s not in Barrington. Gets rid of the hotel name and it returns on property in Barrington.

Discussion
The phrase “he knows the exact dates” appears to be an inference. However, earlier in the test the user had said when his trip was, so in the larger context of the test this is actually an observation. If I were rewriting this for a report, I would clarify by phrasing it as two observations: “User had mentioned exact dates earlier; he entered those dates in the search.”

If the user didn’t say what he was thinking, I might write “[Not sure of spelling??]” to indicate that I’m making an inference. If I had asked him, my notes would say, “I ask about spelling.”

Debriefing Meeting: Prioritizing the Issues

- Whole lot of data coming at high speed, what to do with it all?
- Debriefing meeting help to sort out what you’ve learned from usability test
  - Prioritization of the issues
  - Action plan for addressing issues
Affinity Diagram

- Technique useful to identifying patterns in qualitative data

- Method
  - Everyone picks their top observation and writes them on an individual sticky note
  - Tape cards along a wall
  - Everyone reads all of the observations
  - Sort them into groups
  - Name each group
  - Vote on which groups have greatest impact on the success of the next release

- Team members physically sort the cards into groupings, without talking
- Look for two ideas that seem related in some way
- Place them together in a column off to one side
- Look for ideas that are related to those you've already set aside and add them to that group
- Look for other ideas that are related to each other and establish new groups
- This process is repeated until the team has placed all of the ideas in groups.
Affinity Diagram

- Name each group
  - Create header cards for the groups
  - Header is an idea that captures the essential link among the ideas contained in a group of cards
  - Idea is written on a single card or post-it and must consist of a phrase or sentence that clearly conveys the meaning, even to people who are not on the team

- Team develops headers for the groups by
  - Finding existing cards within group that will serve well as headers and placing them at the top
  - Discussing and agreeing on the wording of cards created specifically to be headers
  - Discovering a relationship among two or more groups and arranging them in columns under a superheader

Affinity Diagram

- Vote on which groups have greatest impact on the success of the next release
  - Everyone reads all group names
  - On scratch paper, write down three groups that have greatest impact
  - Rank them in order
    - X is third choice, XX is second choice, and XXX is first choice
  - Groups with most X’s indicate priority
  - Reality-check the results by asking, “Does everyone agree that these priorities make sense?”
Debriefing Meeting: Prioritizing the Issues

Why a Group Method?

- Pooling Observations
  - No one person can take complete and perfect notes
  - Reduce chance an issue slips through the cracks
- Recognizing Patterns
  - Observations are qualitative
  - Key to analyzing data is to identify patterns over several user’s worth of tests
  - Having group look at a big picture means greater chance of correctly identifying the most important issues
- Choosing Optimal Solutions
  - Easily to get focused on your area and lose sight of the larger picture
- Disseminating results
  - More members of product team that attend, less need for formal documentation via reports, highlight tapes, or other time-consuming activities

Communicating and Documenting the Results

- Need to communicate results of usability test
  - Not always practical to write a detailed report
- Ideas for communicating results
  - Top 10 List
  - Methodology Report
  - Highlight Tape
  - Walkthrough Video
  - Interface Specification
Communicating and Documenting the Results

- **Top 10 List**
  - Take prioritized list of issues and create short summary of top issues
  - 1-2 paragraphs about each issue and summary of discussion from meeting

- **Methodology Report**
  - Gather methodology related documents (user profile, screener, tasks, etc.)
  - Combine into one document to create paper trail
  - Reused later in subsequent usability tests

- **Highlight Tape**
  - Clips from the tests
  - Time consuming, use sparingly (and get user permission)

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Communicating and Documenting the Results

- **Walkthrough Video**
  - Jot down what to cover – how users reacted to various aspects of the interface, what you changed, how successful changes were
  - Turn on camera, focus on prototype, and do a show-and-tell

- **Interface Specification**
  - Tie images/screen together to show sequence