Chapter 10 Observers

If a tree falls in the forest and no one is there to hear it, does it still make a sound? If a usability test is conducted and no one observes it, does it still provide value? I'm still pondering the tree conundrum, but I'm pretty sure the answer to the second question is no. The main goals of usability testing are to get information from the users about how to make the product better *and to deliver that information to the people who can act upon it.* A fast and efficient means of achieving that goal is to have product team members observe the usability test.

Renefits of Fu-Room Observers

Given 21st century technology, perhaps there will come a day when people who appear to be sitting across the table may in fact be across the world. But until that day comes, we are stuck with the fact that long distance just isn't the same as being there and an observer who is in another room might as well be halfway across the world. The more that observers are separated from users, the more data they will miss—facial expressions, tone of voice, gestures, and so on.

Although a usability lab with good equipment theoretically allows observers to hear clearly and to see both the interface and the users, it's still possible to miss many nuances. My colleague Donna Cooper has facilitated many tests where she sat in the room with the user, and observers watched the test via a video camera from a separate room with another facilitator. Donna reports that in the debriefing meeting she sometimes feels like she's seen a different test than everyone else—she may be keenly aware of the user's frustration when the observers (and sometimes even the other facilitator) didn't notice it.

Although any observation is better than no observation, I believe there are some distinct benefits of having observers in the same room as users so that everyone can see and hear each other. These benefits are described in the following sections.

Users Feel Respected and Listened To

It can be gratifying to have a roomful of people hanging on your every word and appreciating your insights. Usability specialist Betsy Comstock said it beautifully: "Observers can model through their serious and interested attention the fact that the participant is making a very important contribution to the development of the product" (personal communication).

Especially if the users are already customers, in-room observers can send a powerful and positive message about the team's commitment to improving the product. Even a simple chorus of thank-yous at the end of the session reminds the users that they've made a contribution.

Observers Pay Closer Attention

When I've conducted usability tests in labs with separate observation rooms, I've noticed that as soon as the user does something interesting, the developers immediately start discussing the issue and how to solve it. As a result, they may miss the next several (and possibly more important) issues. With one client, every time I went next door to the observation room to see whether they had any questions, I found them talking on the phone, reading email, passing around the bag of pretzels—pretty much everything but watching the usability test. When observers are in the same room, there are fewer distractions and they tend to pay much closer attention to what the users are doing. (Another solution to this problem is to have a second facilitator sit in the room with the observers.)

Observers Ask More Questions

Although a prepared facilitator will know in advance many of the areas that the product team would like to probe, interesting and unanticipated things happen during usability tests. The nature of paper prototyping makes it a natural technique to use in the earlier stages of design, when the product team is still working out the best approach or perhaps still getting a full grasp of the problem that their

interface is a solution for. Sometimes it's valuable for the product team and users to discuss things directly, especially when the facilitator is not a subject matter expert but the users are. Although it's possible for the facilitator to run next door to an observation room (or use a phone or other equipment) to gather questions from observers, I've found that observers in these situations ask fewer questions than when they're in the same room. (Note that it is not appropriate for observers to interrupt a task with questions. As mentioned in Chapter 8 the facilitator decides when questions are allowed and how long discussions should continue.)

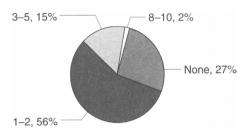
The Facilitator Can Observe the Observers

Effective usability test facilitation contains a feedback loop: Users provide data to developers; developers respond by taking notes, through body language, and by asking questions; and the facilitator makes adjustments to help the observers get the most out of the session. For example, I might see that all the observers are busily writing notes. This lets me know that they've noticed an important issue, so I might slow down the pace until they've captured it. (Plus, I don't have to harp on that issue later—I know they've gotten the message.) On the other hand, if observers are sitting there passively, either they already have ample data on the issue or the current line of investigation isn't of interest. Knowing that, I can respond by assisting the user, moving to a different task, or changing the topic of discussion.



The facilitator should be aware of how observers are reacting and make adjustments accordingly. (Illustration by Rene Rittiner.)

How Many In-Room Observers*?



July 2002 survey of usability practitioners 169 responses *Not including the computer and facilitator

Figure 10.1 Answers to the survey question, "What is the maximum number of observers that you feel are appropriate to have in the same room with the user(s) during paper prototype tests?"

My effectiveness as a facilitator is hampered if I can't see how the observers are reacting—I'm dealing with an open feedback loop. My worst example was when I went next door to the observation room at the end of a test to see if the observers had any questions, and instead of the half-dozen people I was expecting, there was *no one* there. I had no idea when or why they had left, what they'd seen, or if anyone had bothered to take notes. I felt like that lonely tree that fell in the forest.

There Are No Hidden Watchers

Although you might assume that it's more intimidating to have observers present, some users have told me the opposite—the thought of hidden watchers can be unnerving. At the time of this writing, many companies are clarifying their policies regarding the use of personal information collected from customers. In the future, as people become more savvy about their rights to safeguard their information and privacy, it is possible that unseen observers and videotaping may become less acceptable to people than they are today. On the other hand, if video surveillance of public places becomes more common, people may come to think of their lives as one big reality TV show. Either way, the social and legal issues around this question bear watching (no pun intended).

Concerns about Fn-Room Observers

Figure 10.1 shows how 169 usability professionals answered a question about inroom observers. As you can see, most respondents feel that it's acceptable to have a few in-room observers, but not a lot. As Table 10.1 shows, the concerns I've heard about in-room observers fall into three categories.

Table 10.1 Concerns about In-Room Observers

| Concern | Explanation | Discussion |
|------------------------------------|---|---|
| Disruptive observer behavior | Observers may not behave appropriately, interrupting to help the user, defending the design, expressing dismay that the person doesn't "get it," etc. | This can indeed be a problem, but it's a solvable one. Observers can be trusted to behave appropriately, especially when they are taught about the effects of their behavior on users. After all, we're talking about fully functioning adult members of society here, not a troupe of baboons. |
| Changing user behavior | In a paper prototype test, the Computer and facilitator are necessarily present. But having nonparticipating observers may cause users to behave differently than they normally would—inhibiting their willingness to explore, causing them to be less forthcoming with criticism, etc. | It's always good to question how your methods may affect your results. Effects due to observers can't be eliminated because users must be told if the session is videotaped and/or that people are watching from elsewhere. In practice I find that properly briefed users are quite willing to offer feedback, so I'm not worried about that issue. Other effects attributable to in-room observers are certainly possible, but practically speaking I don't think they would reverse many of the findings I've seen from paper prototype usability tests. Chapter 13 talks more about various sources of bias, including some that I think are more problematic than in-room observers. |

Table 10.1 Concerns about In-Room Observers—cont'd

| Concern | Explanation | Discussion |
|--------------------------------|---|--|
| User stress (a.k.a. ethics) | Users may feel uncomfortable being under close scrutiny, especially when (not if, since it almost always happens) they are confused about something or get stuck. | True, and this is the bottom line. Causing the users more stress than they have consented to would be at odds with the ethics of usability testing. You have to make your decision about in-room observers based on your best understanding of the benefits/risks, the personalities of the individuals involved, and your own comfort level (it's difficult to make someone feel at ease in a situation where you're uncomfortable yourself). Ethical questions are complicated, so talking them over with colleagues is a good idea. |

Learning from Disaster

On weekends I teach beginners how to ride motorcycles according to a curriculum developed by the Motorcycle Safety Foundation (MSF). The MSF course draws heavily from the findings of a 1981 research study of motorcycle accidents in California.* For every significant accident cause, the course has corresponding material aimed at reducing that risk. For example, the study found that in two thirds of multiple-vehicle accidents, the driver of the other vehicle violated the motorcyclist's right of way. Thus, the course discusses several ways for a motorcyclist to be more visible to other drivers.

Although I haven't done a scientific study of in-room observers, I try to copy the MSF approach—whenever I hear about a "crash" (unpleasant incident) that was caused by an observer, I ask myself whether my methods (the observer rules discussed later) are theoretically able to prevent it. In doing research for this book, I deliberately set out to collect the worst examples I could find about in-room observers, and the three on pp. 227–228 are typical.

^{*}The study's informal name, "The Hurt Report," refers not to its ominous subject matter but to its lead researcher, Dr. Harry Hurt of the University of Southern California.

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

"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 Rosalee Wolfe, DePaul University

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."

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 Rosalee 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—cont'd

"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 velling, saving 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 briefed that he wasn't allowed to talk.) The participant is still a customer, luckily."

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.

Anonymous

Keep in mind that the potential for observers to wreak havoc doesn't magically vanish when you confine them to an observation room. Colleagues have told me about observers who disrupted usability tests by laughing loudly (most observation rooms aren't soundproof), barging into the test room to explain something to the user, or even throwing M&M candies at the one-way mirror. So no matter where the observers are located, it's important to brief them on appropriate behavior.

Who Shouldn't Be in the Room

It may not be appropriate to have a particular observer present if that person's presence might be intimidating to users. In one usability study I conducted, the users were subscribers to a professional magazine and one of the observers was a

^{*} Oddly enough, Joe later decided to change careers and become a minister. We wish him well in his new vocation.

highly regarded editor of that magazine. The users knew the editor by reputation, although none had actually met him. We decided to have the editor observe the tests from the room next door so that his demigod presence wouldn't cow the users.

Similarly, you should tread carefully in any situation in which a user and observer know each other, especially if there is a difference in power (manager-subordinate) or an ongoing relationship (account manager-customer). In these situations, unless both parties agree that they're fine with the idea, it's best to ask the potentially intimidating observer not to attend that test.

Weighing Risks and Rewards

Many activities, whether professional or personal, have both risks and rewards—investing in the stock market, having a baby, and starting a business all come readily to mind. Intelligent people study the inherent risks, seek ways to minimize them, and then weigh them against the rewards before making a decision.

I'm a firm believer that it's okay to have observers sit in the same room with the users. This is how I learned to conduct usability tests, and I've done it successfully hundreds of times. In my experience, the benefits are considerable and the risks avoidable. Although I don't expect that everyone will agree with me, I do hope that a better understanding of in-room observers will encourage others to try this approach.

Thus far, the discussion of in-room observers applies equally to both paper prototyping and computer-based usability tests. But with a paper prototype test, there are always going to be at least a couple people in the room with the users, namely the Computer(s) and facilitator. Even if the observers will sit elsewhere, I recommend that the Computer and facilitator understand the risks and benefits discussed in this chapter. And given that paper prototyping is inherently a social activity, I don't believe that the *incremental* risks associated with a few well-behaved observers are compelling enough to outweigh the benefits that can be realized by face-to-face contact between those who develop interfaces and those who use them.

The Rules



manage them effectively. I require that everyone, even the CEO, attend a pretest briefing where I hand out and explain the following list of rules (also available at *www.paperprototyping.com*). Observers who haven't been briefed can't sit in the room—they are loose cannons and I have no idea what they might do.

Rules for Usability Test Observers

Everyone who observes a usability test is asked to abide by a set of rules. The purpose of these rules is to minimize stress for the test participants and to maximize the amount of information we get from the usability tests.

Stay for the Entire Test

The goal is to have the users forget that anyone else is in the room. Having people constantly coming in and out is distracting, and 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. If you can attend only part of a test, discuss this with the facilitator beforehand to determine whether there is a way to accommodate this.

Please turn off cell phones and pagers!

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. This is not unusual.

Unfortunately, the 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. If you have 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 inactivity makes you sleepy, one trick is to write down every word that users say.) But 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.

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. The facilitator will keep an eye on the clock so that we can cover as many of the important areas as possible.

No Helping

During the test, it's likely that users will have problems using the interface, and it is normal to feel a temptation to help. Please don't. Instead, try to understand why it was that the user got stuck or went down the wrong path. It's the facilitator's role to get users back on track if they get really stuck. And 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.

Avoid "Design Questions"

You will have an opportunity to ask questions after each task. Questions that ask the user their opinions about how to design aspects of the application (such as, "Where would *you* like to see these navigation buttons?") can take a lot of time to answer and produce only limited results. Instead, focus on trying to understand the *problem*—we'll come up with solutions later, outside the test.

Respect Participants and the Confidentiality of Their Data

We have promised the participants that their participation is confidential. This means that we should not include their names in any reports or other communication such as email, and we should 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.

How to Explain the Rules to Observers

I suppose I could just hand observers the Rules and say, "Do this or else!" But people are more likely to adhere to the spirit of the rules when they understand their purpose and importance. So I start out very seriously. A good way to drive home the purpose of the rules is to describe a worst-case scenario, like the one that happened to Jared Spool (see the From the Field box on p. 232). Empathizing with the user's shame and embarrassment creates a "teachable moment" where people are much more inclined to think about the consequences of their behavior.

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 except for her quickly 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 started 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 (www.uie.com)

I don't usually find it necessary to discuss each rule in detail, but there is no harm in doing so, especially when usability testing is new to a company. (I usually do remind people that when I ask a question, I'm asking the users. Otherwise, it's common for a helpful team member to pipe up with the answer.)

As an outside consultant I have the advantage (deserved or not) of coming into a company as the de facto expert in usability, and as a result I find that observers are willing to follow my instructions. But if you are self-taught in usability and everyone on your team knows it, that kind of credibility—and the authority that accompanies it—may be a bit harder to come by. One excellent suggestion from veteran usability specialist Chauncey Wilson is to have observers sign a copy of the rules once they've read and understood them. Chauncey notes, "The commit-

ment of a signature seems to work, even with senior managers." To put it another way, it turns the situation from "You must do as I tell you," into "I agree that these are the ideals we're trying to uphold." Another tactic for raising awareness is to ask the observers to brainstorm what might happen if someone violated each of the rules.

Observers Are People Too

Right before a usability test, a developer once joked with me that he wished he had a cast iron lining in his stomach because he was so nervous about what the test would reveal. This from a guy who wholeheartedly supported the idea of usability testing, and after the first couple of tests had found only minor problems! With all the focus on users, it's easy to lose sight of the fact that observers have feelings too.

Usability tests can be nerve-wracking, especially to those who had a direct hand in designing the interface. So I end my observer briefing by acknowledging that a usability test can be stressful and frustrating for observers as well as for users. As a facilitator, my job isn't to beat up the interface (and, by proxy, the people who designed it) but to shed light on what's happening inside the users' heads. I emphasize that part of our purpose is to find the parts of the prototype that are working well, not just the flaws. This is something that's easy for beginning facilitators to forget in their enthusiasm for uncovering problems.

In June 2001 Bruce Tognazzini wrote a brilliant, biting, and all-too-true column on this subject called "How to Write a Report without Getting Lynched." It's on his Web site at www.asktog.com. His opening sentence is, "The finest set of recommendations will be rejected if the form in which they are received is seen as hostile or belligerent." This article should be required reading for anyone who conducts usability tests or reports their results.

When to Brief Observers

For several years, I made it a point to brief all observers right before every test, just to be on the safe side. Although I no longer think this is necessary, I might still do this if there were individuals I was concerned about but didn't want to single out. What I usually do now is designate one or two 10-minute briefings on the first test day—maybe one first thing in the morning and one after lunch—and tell observ-

ers that they must attend one of them before coming to a test. If someone can't attend a briefing, I'll either arrange a special briefing for that person or I'll "deputize" a trusted observer to do so.

Relaxing the Rules

When I'm not busy conducting usability tests, one of my hobbies is motorcycling. I've found that the best passengers are those who are just a little bit scared because they will do *exactly what I tell them*. But if they get too relaxed back there, they're more likely to do something dangerous. The worst passenger I ever had was a proficient rider who was so comfortable that he kept forgetting his actions affected my control of the bike—like the time he leaned over to scratch his ankle and almost dumped us both onto the pavement.

I've seen a similar problem with usability test observers. Most observers are initially conscientious about their behavior, especially after hearing the story of The User Who Cried, and they follow the rules to the letter. But sooner or later the observers become comfortable with the test format, and they start to bend the rules. It starts in fairly innocuous ways, such as interrupting a task with, "Can I ask just one question?" (It's difficult to say no because the observer genuinely wants to know, and I've never been able to bring myself to use the flippant response, "Yes, and you just did.")

But this is a slippery slope, and it can affect the facilitator's control of the test session. One or two interruptions may not spell disaster, but they open the door to similar behavior that eventually might. The worst case I experienced was when observers managed to start separate conversations with the two users, and the test fragmented into a rudderless meeting. After that incident, I carefully rebriefed the team again, telling them, "Even though we're quite comfortable with how a usability test works, we have to remember that it's all new to the users." This line is a good reminder to experienced observers that their behavior can have consequences they didn't intend.

Having said all this, sometimes no harm comes from relaxing the rules a bit, especially if there are only a couple of observers, it's a Friday afternoon, and the users are in a jovial mood. In a case like this I sometimes allow a bit more conversation and even an occasional interruption. But the facilitator retains the right to allow or prohibit this to the extent that he or she feels is appropriate. With new observers (or facilitators), it's best to manage the user-observer interactions strictly at first—it's easier to relax discipline than it is to make it more stringent.

Working up to In-Room Observers

Is there a limit to how many observers you can have? It depends on several factors: the size of the room, whether you're doing co-discovery, the user population, and the experience of the facilitator. Cram six observers into a small room with one timid technophobe and the psychological discomfort will be so palpable that you could cut it into blocks and build a retaining wall. But put those same six observers in a larger conference room with a pair of confident domain experts and the session is likely to be relaxed and fun. My rule of thumb is about half a dozen team members (including the Computer and facilitator) per user, although sometimes I have allowed more. In practice it's rarely feasible to have more than 10 observers because it's too difficult for them to see the prototype.

As Figure 10.1 shows, my position on in-room observers is at the upper end of the spectrum compared with that of many of my peers. However, I have a decade of experience in training observers and in helping users feel at ease. One way to get started is to have a small number of observers—one or two—in the room, and the rest elsewhere. Start by inviting the people you think will be easiest to have in there with you, and afterward have them compare their experiences with those of the people who sat in the other room. People can take turns being in-room observers, and you can gradually increase the limit if and when you are comfortable doing so.

Preparing the Users

It would be inappropriate—not to mention unethical—to lead the user into a roomful of observers that they weren't expecting. (It is equally unethical to not tell the users that they're being watched and/or videotaped.) If you review Chapter 9, you'll notice that the presence of the observers is mentioned to users three times:

- 1. During recruitment (whether done by you or an outside agency)
- 2. In the informed consent form
- 3. During the pretest briefing given by the facilitator

In essence, users should have several opportunities to opt themselves out of the experience (or at least find out more about it) if they're concerned that it might be uncomfortable. If for any reason you are concerned about a particular user group or test setting, be proactive about dealing with it ahead of time. For example, when testing a health information Web site, I was worried how users would feel about discussing their personal health issues in front of a roomful of strangers. A market research firm had recruited the users, but I also called them to explain the test setting and find out what topics they'd feel comfortable discussing. In the tests, I was amazed at how relaxed the users seemed, and I believe this was partly due to the extra time I spent explaining the social nature of the setting and double-checking that they were okay with the topics we planned to cover.

Observer-User Interactions: Questions to Avoid

I think it's great for observers to directly ask questions of the users, for the kinds of reasons described earlier in the "benefits" section—for example, the facilitator can't know all the questions in advance. But observers need some guidance to understand the difference between a good question and a bad one. A bad question is one that

- Reveals the answer.
- Belongs in a focus group.
- Asks users to imagine.
- ♦ Asks users to explain their cognitive process.

Each of these is discussed further.

Questions That Reveal the Answer

For some reason, the way that a question naturally pops into one's mind is usually not the best way to ask it. For example, "Was it clear to you that Purge would delete all the records?" reveals to the user what the desired answer is. To avoid doing this, one trick I've learned is to formulate the question mentally, pay attention to the second half of it (where the true question usually lies), and then turn it around so that it's nonleading, for example,

Original question: "Was it clear to you that Purge would delete all the records?"

(Hmm, second half says: "Purge deletes all the records." Oops, I don't want to tell them what Purge does, I want to ask them.)

Reformulated question: "What did you think Purge would do?" Possible followup if needed: "And what did it do?"

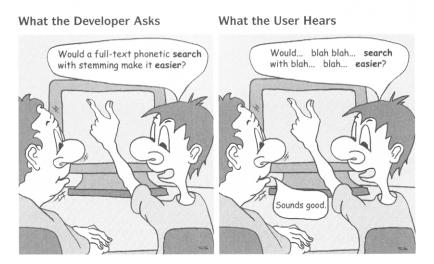
Learning to ask questions in this manner takes practice, so it's unfair to expect perfection from anyone, including the facilitator. If someone accidentally asks a leading question and the user spits back the encapsulated answer, it just means that you can't draw any conclusions from it. But sometimes the user will bail you out by saying, "You know, that never occurred to me—what I really thought was ..." And then you *can* trust the answer, despite the leading question.

Questions That Belong in a Focus Group

Usability tests of paper prototypes are not an especially good way to gather data about whether users like a product concept enough to buy it, how much they'd pay for it, and so on. In a usability test, the primary purpose is to determine how well the interface does what users need it to do, and often you also end up learning valuable things you didn't know about the users and their requirements. To gather this kind of information, you need to remain open to all feedback, both positive and negative. Once you start asking questions like how much they'd pay for the product, the nature of the discussion changes from "How can we make this better for you?" to "How can we sell this to you?" Users will recognize that you've put on your sales and marketing hat, and it may affect the nature of the feedback that you get from that point on. Even if you reserve these questions until the very end, usability testing is an inefficient way to get this kind of data because you've got one or two users and several product team members—in a focus group, the ratio is reversed.

Questions That Ask Users to Imagine

Beware of questions that take the form, "What if we did X and Y. Would that be better?" Unless it's something you're showing to the user, you're asking the user to use his or her imagination to envision the improvements. But it's hard to know whether the user is envisioning the same thing as you are or shares your understanding of the terms you're using—every profession has its jargon and high tech



has more than its fair share. To the user, these questions tend to sound like, "If we made it better, would you like it more?" They'll answer yes, but this tells you nothing. The risk is that you might go to a lot of work to implement something that doesn't help users.

Questions That Ask Users to Explain Their Cognitive Process

My favorite bad example: "Did you click that Sign up button because it's yellow?" Human beings are notoriously bad at explaining their own cognitive processes. Very often we can't articulate why we did something, or in our desire to please we may invent post-facto explanations for our behavior that have nothing to do with reality. It's usually best to watch what people do and listen to what they say as they're trying to do it (which helps you understand their intent) but not to ask them to dissect their behavior and come up with a reason for each action.

Ever been on a camping trip and tried to hang up a flashlight? Those clever little ones have a hole in their base designed for exactly that purpose, but in the dark it's almost impossible to put a string through it—no matter how you manipulate the flashlight, the light insists on shining out the opposite end from where you want it. That's kinda what it's like to examine your own cognitive process—by the very act of trying to shed light on it, the part you're interested in slips into darkness.

What Observers Should Do

So far, this chapter has been primarily about the things that observers shouldn't do. But there is one very important thing that they *should* be doing: taking notes. The next chapter explains how to take good notes and what to do with them afterward.