



## **CHALLENGES BEFORE THE SESSIONS BEGIN—THE PLANNING PHASE**

Designing an effective usability study takes careful planning, which begins well before test sessions take place. Planning effective recruiting is a crucial part of designing a successful usability test.

### ***Developing a Target User Profile to Help Identify Likely Users***

The biggest, most basic recruiting challenge Tec-Ed faces is developing a target user profile that will help identify likely users. As noted earlier, likely users are those whose experiences and opinions yield reliable data for identifying meaningful improvements to high-tech products and services.

### **When to begin—start at the first planning session**

Effective recruiting begins the first time Tec-Ed meets with the usability study sponsors to plan the study. We not only confirm what key issues the sponsors want the study to address, but also who the likely users of the product being tested will be. Learning from the sponsors what the new product does and who it is intended to serve helps Tec-Ed determine the likely users of the product.

### **Where to begin—start with the study sponsor’s current client base**

Tec-Ed has found that the study sponsors usually have a customer base for their existing products and are targeting these customers, or a special subset of these customers, as the audience for their new product. For example, a financial software company may develop a payroll module for their business accounting package and will target registered owners of the existing package.

In some cases, a company may be branching out to target a group of people who are different from their current customer base. For example, a developer of a professional photo editing and digital imaging tool may create a home version of the tool. The new product’s audience is likely to be larger, but also far less experienced with imaging tools than the audience for the professional version.

In either case, to develop a profile of likely users and recruit them in a timely fashion, Tec-Ed has learned that it’s important to determine as early as possible who the study sponsors are targeting for the product we will be evaluating and studying.

### **Case study #1: two-way pager with virtual keyboard**

Tec-Ed conducted a usability test of a new two-way wireless device. (Two-way “paging” provides the ability to respond to an incoming page without having to use a telephone—in other words, right from the pager.) The device we studied has a built-in virtual keyboard from which users can select letters and punctuation to create messages to send over the network to other two-way pagers. In addition, users can email a message from the pager to any email address.

The product was developed to serve mobile professionals—those who work a high percentage of their time away from their desks, but who need to stay available to customers and co-workers. As we probed further during the initial planning meeting with the study sponsor, we learned that the likely users for this new virtual keyboard pager were current two-way pager customers who already saw the value in responding to messages with replies supplied by the pager (“canned” replies).

The study sponsors felt these same users would also be likely to see the value of creating their own replies to messages, and of being able to email anyone—not just other two-way device users—from the pager.

So, for this study, the target audience was mobile professionals, and the likely users were current two-way pager customers.

## **Case study #2: email component of Web-based productivity package**

A large Web product company commissioned Tec-Ed to conduct a comparative usability study of a new product they were developing to compete with the latest developing product of a major competitor. Tec-Ed tested the email components of the two competing Web-based productivity suites.

The two competing products were developed to serve both business and home computer users. As we probed further during the initial planning meeting, we learned that the likely users were Internet-savvy people who regularly use email.

### ***Using Rigor in Defining Screening Criteria***

Once the likely users are identified, Tec-Ed and the study sponsors work together to define in greater detail the user characteristics that will help recruiters screen and qualify candidates for participation in the study.

### **Questions that help define participant criteria**

Tec-Ed uses the following list of probes to help elicit detailed participant-characteristic information from study sponsors, tailoring the probes to relate to the product we are going to test:

- Frequency of use—infrequent, often, key to job.
- Social environment—uses for self, or supports others (system administrator, office “admins”).
- Complexity of tasks (specific to product or domain).
- Prior experience—specific products (competitive, related, predecessor).
- Type of organization—size; retail/manufacturing/wholesales/service.

## **Case study #3: telephone conferencing system**

A start-up company with a brand new product in development commissioned Tec-Ed to conduct a usability test of their new telephone conferencing system. The study sponsors told us their product’s target audience was people who arrange and/or participate in telephone conferences. The new product includes software to set up a meeting and notify meeting attendees, thereby eliminating the need for a telephone company operator.

Because the system includes software that runs on MS Windows, our study participants had to be experienced computer users whose operating system was Windows. We probed further to determine:

- How often candidate participants currently arrange or attend phone meetings. If only once per month, they probably would not see the value in investing in a software package to manage phone meetings. If two or three times per week, then interest would probably be higher.
- Whether meeting arrangers and meeting attendees would use the software differently—if so, we needed to recruit two basic user groups: arrangers and attendees.
- How complex the arranging and attending tasks would be. Therefore, what level of computer experience participants would need to have.
- What type of organization participants should come from. The price of the software can influence whether larger or smaller companies are targeted for a product. In this case, we agreed that just about any type of organization, whether retail, manufacturing, high-tech, or a service firm could benefit from this product as long as they regularly held telephone conferences and were large enough to afford the software.

## **Case study #4: a commercial Web site that sells and delivers software**

For another company, Tec-Ed conducted a test of a newly developed Web site from which a visitor can purchase and download software. Because the targeted audience could be anyone who uses a computer and the Web, and who purchases software from time to time, we had to work with the study sponsors to more narrowly define participant characteristics for the study.

Tec-Ed returned to our criteria-defining probes and zeroed in on the ones that would best relate to this study. We determined that participants:

- Needed to use the Web at least weekly for 10 or more minutes.
- Could be from any social environment, as long as they had the authority to purchase software for themselves or their company.
- Had to have downloaded software, free or purchased, from the Web at least once.

The sponsor also wanted the participant group to represent three levels of experience in purchasing from the Web:

- “Newbie” participants who had never purchased from the Web. (The sponsor wanted to learn if newbies’ purchasing barriers would diminish using this Web site.)
- “Experienced” participants who had purchased software or some other commodity such as books, music CDs, or plane tickets from the Web at least once.
- “Expert” participants who had purchased, downloaded, and “unlocked” software from the Web at least once.

So, even though the target audience for this product was potentially very large, we worked at defining characteristics that would help recruit likely users who would be able to provide usable data.

### **A couple of quick Tec-Ed screening strategies**

Once the desired participant characteristics are determined, Tec-Ed begins building a screening script that our recruiters use to interview, screen, and qualify candidate participants. (See Handout A: XYZ Company Web Pages Usability Study Participant Screening Materials.)

**Quick disqualifiers:** We find it’s best to identify two or three criteria that recruiters can screen for first to allow for immediate rejection. For example, if the product being tested runs on Windows 95 and targets an audience of men between the ages of 25 and 55, the screening script should start with these easy, quick rejecters. Any men over 55 or under 25, or who do not have Windows 95 experience, will be immediately rejected from the study.

Recruiters can save time by not having to ask any further screening questions. Candidate participants also appreciate not having to answer several questions, only to find themselves ineligible for the current study. However, Tec-Ed always enters an ineligible, but interested, candidate’s name and background information into our participant database for future recruiting needs. (Also see Handout B: Iterative Process for Participant Recruiting.)

**Participant characteristic table:** Tec-Ed recruiters record recruiting progress on a table that concisely summarizes participant characteristics. This table serves as a useful reporting device for both project managers and study sponsors. (See Handout C: Participant Characteristics Table.)

### ***Deciding Whether and What to Offer Participants as Honoraria***

Many individuals are very interested in new technology and easily become involved in discussions and testing of new products and services. However, Tec-Ed has learned that the reality of scheduling usability test sessions (usually during regular business hours) often means people may not be motivated to participate without receiving some type of honorarium. Several factors influence the type and amount of honoraria Tec-Ed offers to usability test participants.

#### **Tec-Ed offers monetary honoraria if:**

- Sessions are held during regular business hours. People who take time from their jobs to participate in the study expect to receive a monetary honorarium. Tec-Ed usually offers an honorarium of \$50 per session hour in the US Midwest, and up to \$75 per hour in the San Francisco Bay Area.

- Commuting time is a factor. When the study is held in a large metropolitan area, commuting time through heavy traffic definitely becomes a factor. Tec-Ed offers would-be commuters a higher monetary honorarium amount to help induce them to spend the additional time they will need to commute to the test site.
- The targeted participants are highly compensated, busy executives or senior executive staff. Tec-Ed offers them a minimum honorarium of \$125 per session hour.

### **Tec-Ed offers non-monetary honoraria if the target audience includes:**

- Students, retirees, and/or homemakers—those who do not have to take time off from a job, and who also may be attracted by the offer of free merchandise. Tec-Ed usually offers these people a complimentary copy of the software being tested, once it is released.
- Mainly the technologically curious. They may also be satisfied with just a complimentary copy of the software being tested, once it is released.

### **Tec-Ed offers multiple types of honoraria if:**

- The target audience is children. Tec-Ed has offered school-age participants a \$50 savings bond and hard-cover illustrated children’s literature, which tends to be more meaningful to children than just cash.
- Sessions take place during the lunch hour or after regular business hours. People often will need to come straight from work. Therefore, Tec-Ed offers a light meal in addition to monetary honoraria. Hardly anyone has refused food and beverages we have offered—participants appreciate not having to miss lunch or dinner to participate in the study.
- The participants are employees of the study sponsor. These people are being compensated by their employer for participating. In addition, the study sponsor usually provides Tec-Ed with corporate merchandise such as coffee mugs, T-shirts, or sweatshirts embossed with the company’s logo to offer these participants.

### ***Considering the Effect of the Usability Test Site on Attendance***

The location of a study can greatly influence participant attendance. To help motivate participants to attend sessions, Tec-Ed uses the following guidelines when working with the study sponsor to choose the test site.

#### **Choose a central location**

To ease the commuting burden discussed earlier, whenever possible, arrange for a test site that is centrally located and easily accessible to the targeted participants (near a major freeway exit, for example).

#### **Provide good maps**

If choosing a central location is not possible because, for example, the product or service being tested “resides” only in one, non-centrally located place, then Tec-Ed includes with the participants’ orientation packets a simple, easy-to-follow map with explicit written instructions directing participants to the location. (See Handout D: Maps That Don’t Work, and Handout E: Maps that Work.)

#### **Plan around high security sites**

If the study takes place in a building with high security, we make sure we let participants know in their orientation packet. Tec-Ed learned “the hard way” that locked buildings are a major deterrent to attendance. As we were approaching a locked, glass entryway to meet a participant, we saw her approach the building entrance, find the door locked, and immediately return to her car—all before we could catch up with her and invite her back in. Therefore, we now have a person in charge of waiting by the entrance 10 minutes before and at least 5 minutes after a participant’s scheduled arrival time to let the participant in and escort him/her to the test area.

## **Consider climate and surroundings**

Another factor to consider when deciding on the test site is the locale's climate and surroundings. For example, Tec-Ed scheduled some Saturday sessions in the San Francisco Bay Area, thinking it would be more convenient for working people to attend a session on their day off. However, when that Saturday dawned brilliantly sunny, windy, and warm, not one of five scheduled (and reconfirmed) participants showed up for sessions—the surf was up!

In Michigan, whenever possible, Tec-Ed avoids scheduling studies during the heavy snow months of February and March. We've experienced 100% "no-shows" during sessions for two studies because of snow storms.

## **CHALLENGES DURING ACTUAL RECRUITING**

As stated earlier, effective participant recruiting is crucial to collecting reliable data during usability testing. And recruiting challenges don't end with the planning phase. Tec-Ed has faced several challenges during the actual recruiting process.

### ***Recruiting Back-Up Participants to Handle "No-Shows."***

Because Tec-Ed can't always control the location or time frame for a study, we plan ahead for cancellations and no-shows to increase the likelihood of getting a final pool of representative participants.

When they can be reached, no-shows cite various reasons why they didn't make it to scheduled sessions. Tec-Ed has learned to accept that a certain number of participants will not show up and to plan accordingly. We schedule at least one back-up participant for every four to five regular participants to handle the inevitable no-shows. Tec-Ed schedules back-ups in two ways, as discussed below.

### **Schedule extra slots, and cancel if they're not needed**

Tec-Ed recruiters regularly add a day or half-day of extra slots to accommodate scheduling back-up. People we designate as back-ups sometimes are less-than-100%-qualified participants. Or, we fill the extra slots with qualified participants if we've recruited more than desired number.

Tec-Ed recruiters tell scheduled participants only that we are scheduling back-ups for the study. We don't actually let designated back-ups know that we've scheduled them as back-ups, so we don't provide them with a built-in excuse to not show up.

If by the end of the second-to-last testing day we've seen all the 100%-qualified participants we need to, we politely cancel the remaining unneeded sessions.

### **Double-book time slots**

Once, when one of our studies was planned on a very tight schedule, Tec-Ed employed the airline and hotel strategy of overbooking slots—with resulting 100% attendance.

We scheduled two qualified people for each scheduled slot. When the first of the two people arrived, we escorted them to the test room and then returned to wait for the second. When the second person arrived, we explained that there was a scheduling mix-up, that s/he would not be needed for the study at this time. We then offered him/her the cash honorarium anyway. If the second person didn't show, no harm was done, of course.

Only a few participants were truly disappointed at receiving cash for *not* participating. We handled these participants with "kid gloves," thanked them for their interest, and offered them the possibility of participating in future studies.

## ***Including Participants Whose Characteristics Almost Match***

Tec-Ed has found that the best way to handle nearly qualified participants is to schedule them as pilots, or as back-ups, as discussed in the section above.

Sometimes Tec-Ed anticipates recruiting difficulty for a variety of reasons, and is aware that fewer people than the ideal target number may be 100% qualified. Therefore, Tec-Ed meets with the study sponsor to choose which standards can be relaxed, and by how much, if the targeted number is potentially difficult to recruit.

For example, a study sponsor wanted half men and half women in the study, but knew from demographic data that more men than women would tend to use the product we were testing. Therefore, they were willing to be flexible with criteria such as job title, age, etc., to recruit enough women. Another study sponsor was willing to allow self-employed people into the study, as long as they were otherwise qualified, after recruiters had difficulty finding enough people from larger companies.

As recruiters become more experienced, they gain greater screening insight—they're able to more easily gauge when to ask the study sponsor to consider relaxing a standard and when not to.

## ***Recognizing Possible Job Seekers and Technology Spies or Competitors***

While Tec-Ed includes questions in our screening scripts that help verify participant qualifications and detect unacceptable candidates, our recruiters had to acquire the ability to “sniff out” job seekers, technology spies or competitors, and others who provide exaggerated or “iffy” information to get into a study. The more experienced the recruiter, the less chance of unacceptable people being scheduled. Tec-Ed recruiters listen carefully for responses that will help them weed out unacceptable candidates.

### **Job seekers' responses may include:**

- Above-average concern about how many other people will be there (also vying for a job).
- Asking how to dress for the session (wanting their attire to be appropriate for a job interview).
- Extended questions about the product, the study sponsor, and where the study is being held (cross-checking their experience against what the sponsor may be looking for in an employee).
- Wanting to know how many days the study lasts (considering usability testing as a possible short-term job).

### **Technology spies' or competitors' responses may:**

- Indicate too much knowledge about the product being tested, especially when the product is a prototype.
- Include extended questions about the product, possibly to compare how their own product measures up.
- Be fishing for how many participants will be there so they can bring enough business cards or samples—not all responses are this obvious, however.

## **CHALLENGES AFTER THE SESSIONS BEGIN**

Once sessions have begun, recruited participants themselves sometimes become the next challenge Tec-Ed faces.

### ***Dealing With Questionable Participants Who “Beat the Screener”***

In spite of Tec-Ed's carefully written screening questionnaires and recruiters' developed “sixth sense,” from time to time, unacceptable candidates still manage to slip through and become participants in one of our studies:

- Job seekers and technology spies or competitors may be very good at keeping their “cool,” covering their knowledge of the product or service category, and providing appropriate responses.
- “Duds” only want to receive the advertised honorarium. They often surf the Web to learn just enough about the product or service category to appropriately answer screening questions.

Once these people are actually in a Tec-Ed usability test session, it's usually just a matter of time before their actions and comments reveal their hidden agendas.

Tec-Ed quickly excuses spies, competitors, and duds simply by saying, "We've learned enough in our session today from what you've accomplished with the product/service, so we're going to let you out early. Thank you for your time." We then offer the honorarium and escort the participant out. We also strike the person's name from our participant database or file, to avoid calling him/her for a future study.

Tec-Ed tells job seekers, "This is strictly a usability study of Product/Service X. We are not employee recruiters, nor are we qualified to provide employment information. You will have to schedule an appointment with the company's human resource department to learn about employment opportunities." If the participant persists, we politely ask him/her to resume evaluating the product or leave the session.

### ***Understanding Why a "Good" Participant Might Not Be, and Why a Difficult One is Valuable***

Tec-Ed finds it easy to appreciate a "good" usability-test participant—one who performs all the planned tasks correctly, "flying" through session and finishing early. While we enjoy an "easy" session and use saved time to balance sessions that go over-time, Tec-Ed acknowledges that "good" participants may not provide the most useful data. These participants usually are positive about the product or service, often only because they've been so successful with it. Therefore, they tend to not offer ideas for improvement.

We may also find it tempting to excuse as a dud a difficult participant—one who finds the tasks difficult to complete, or who is highly critical of several features of the product or service. But before we do so, we carefully consider whether the difficult person truly doesn't have enough experience to perform the tasks quickly and easily, or is simply being hypercritical of a hard-to-use system. Tec-Ed usability specialists persevere with the latter using their rich data to write "crackerjack" reports—ones that are chock-full of recommendations for improvements.

## **PRESENTER INFORMATION**

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