

TUTORIAL TITLE:**Discovering User Needs: Field Techniques You Can Use****Abstract:**

By conducting your own study, you'll learn how to plan field visits, what to look for, and how to analyze the data. You'll learn how to observe and collect key information to feed into your design. Techniques include:

- selecting users
- cataloging and analyzing tasks
- developing forms to collect data
- observing and interviewing
- creating profiles and personas

Length of tutorial:

Full Day

Learning objectives:

This full-day tutorial is an in-depth exploration of how to plan and conduct a field study, how to do a detailed task analysis, and how to conduct contextual interviews. It includes creative ideas for collecting and using data, as well as tips for planning and conducting the visits. The tools covered in the course can be used collectively for a thorough study or individually when budgets don't allow for a complete study. Throughout the course, participants will have the opportunity to ask questions, discuss their own methods, and exchange experiences.

How tutorial will be conducted:

The course stresses active participation; more than 50% of the class time will be spent in discussion and exercises. A short video of an actual study will be shown. Deliverables from other actual studies will be posted in the classroom for students to review. The class will be divided into teams of 4 – 9 people. Each team will perform its own field study at a pre-arranged location. (The field study sites are generally within or near the conference center or hotel.) Teams will use a disposable Polaroid camera and their own study materials to collect data. Teams will plan a field study, gather data, and analyze data. Using flip charts, colored markers/pens, Post-it Notes and the Polaroid photos, teams will document and present their study findings.

DETAILED DESCRIPTION OF MATERIAL COVERED BY TUTORIAL AND A SCHEDULE OF EVENTS WITH TIME ALLOCATION

This tutorial was given at the Usability Professionals' Association 1996, 1998, 1999 and 2002 conferences. It has also been taught at Jared Spool's User Interface conferences from 1998 – 2001, CHI 2002 and at the Studio 2001 conference in Seattle. This course was the most highly rated tutorial at each of the UPA and UIE conferences where it was taught. The workshop format is well honed and highly successful. We have incorporated participant comments by shortening the student presentation time and providing more examples and anecdotes throughout the day.

8:30 – 8:45 Introduction and Overview (15 minutes)

During the introduction and overview, participants will describe their experience conducting field studies and what they hope to learn in the class. Then, the instructors will discuss the following topics:

- Where field research fits in the user-centered design process
- Why field research is important

- Terminology
- A process and a philosophy

8:45 – 9:15 Determining appropriate participant groups (30 minutes)

This section stresses the importance of customer profiles. Participants will learn how to describe their user base and target particular groups of users for potential field visits. There will be time for participants to exchange information on useful techniques. Topics covered in this section include:

- Determining the appropriate participant mix
- Locating and collecting demographic information
- Working with customer lists
- Using outside market research firms
- Developing surveys and screeners

9:15 – 10:00 Planning and Conducting a Field Study (1 hour)

This section covers the basics of planning, setting up, and running a field study. Participants will learn tips to expedite this part of the study, such as using already documented user and task data that likely exists within their company.

- Planning and set-up
- Day-in-the-life studies
- Observing and interviewing users in context
- Targeting the most important tasks

10:00 – 10:30 BREAK**10:30 – 10:45 Planning and Conducting a Field Study (cont.)****10:45 – 11:15 Exercise: Developing materials (30 minutes)**

Participants will work with their team members to develop field study forms and surveys to use for their field study exercise. The exercise field study site will be pre-arranged, and the team members will have a contact name for at least one person at the site they are visiting. The course instructors will circulate through the room, assisting teams with their planning.

11:15 – 12:00 Exercise: Field Study (45 minutes)

Teams will conduct their field study exercise during an extended lunch period. Team members will decide how to divide study roles and activities.

12:00 – 1:30 LUNCH, and Exercise continued, if needed**1:30 – 2:30 Analyzing the data (1 hour)**

This section focuses on how to use the data collected during field studies. Participants will learn how to analyze data as a team. Sample diagrams, charts, and storyboards will be used to illustrate techniques. Topics covered in this section include:

- Slicing and dicing the data
- Developing profiles and personas
- Isolating usage patterns
- Analyzing key tasks
- Creating process storyboards
- Developing user data posters

2:30 – 3:00 Exercise: Producing deliverables (45 minutes)

Teams will produce as many deliverables as possible during the 45-minute exercise period. Instructors will suggest appropriate deliverables and assist teams as needed.

3:00 – 3:30 BREAK

3:30 – 3:45 Exercise: Producing deliverables (cont.)

3:45 – 4:30 Exercise: Team presentations (45 minutes)

There will be approximately 45 minutes available for team presentations. The instructors will determine the length and format of the presentations, depending upon how many participants are enrolled in the tutorial.

4:30 – 5:00 Fitting It In (30 minutes)

This section is a presentation of useful ideas for making the field research process work for your organization. The presentation will be followed by a group discussion. Topics covered in this section include:

- Modifying your schedule
- Convincing management
- Encouraging process change

DESCRIPTION OF MATERIALS (HANDOUTS)

During the lecture portions of the course, we project bulleted slides summarizing the points we are discussing. When appropriate, we project a second set of slides showing examples related to the discussion topic. Students are given detailed notes, as well as a printed copy of the slides. They can choose to follow either format. If they choose to follow the detailed notes, there are slide icons in the notes corresponding to the projected slide being discussed. Examples follow:

Sample Notes Page With Corresponding Slide Number:*Seeing the big picture*

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The “big picture” has to do with gathering the team’s impressions of what the user’s world is like and capturing the major flow of the work, above the task level. Some useful tools for eliciting and documenting the big picture are day-in-the-life descriptions, affinity diagrams, and storyboards. You need not use all of these tools every time, but you should try each technique at some point.

- ***Day-in-the-life scenarios***
We mentioned day-in-the-life descriptions earlier, back in the “Identifying the work” stage. Such a description captures your impressions of the user’s world in a narrative form, covering everything from responsibilities, to attitudes, to problems, to use of technology, to the physical environment. You could have each team member produce a day-in-the-life description and share them as a way to introduce the team’s impressions from the site visits.
- ***Illustrated stories***
Writing a story about a field visit is a good way to “get it all out” when you return to the office. This quick “brain dump” method may end up being one of your most valuable deliverables from the process. If you can tell an interesting story about the people you visit, you can remember what they did, how they felt, what they liked and disliked. If you add photographs to the stories, you will have compelling documents that people will want to read.
- ***Incremental reports***
After each site visit, consider writing an illustrated story and distributing it via e-mail. This will give everyone who is interested in the progress of the study a chance to see how things are going. It will also give people a preview of the kind of information you are collecting. Of course, the incremental reporting is also a good way for you to make sure you deal with the data while it is still fresh in your mind.
- ***Affinity diagrams***
Creating an affinity diagram is a group activity in which members of the team generate sticky notes containing discrete observations and group like notes—ones that share an “affinity”—on a white-board or wall.

The goal is to collect many individual observations and then to give order to them. An example note might be, “Jane often chooses not to refresh the data on her screen because she doesn’t like to wait.” That note might find its way into a category called “Performance Problems.”

One way to speed this process is to anticipate the categories that you are interested in. For example, you might know that you are interested in “Reasons for accessing the documentation.” You could put that category on the board, before you start the session, or you might even have asked team members to mark this category in their notes as they observed in the field.

Sample Slide Page Corresponding To Notes Page:

seeing the big picture

- day-in-the-life scenarios
- illustrated stories
- incremental reports
- affinity diagrams
- storyboards
- timelines



Sample Corresponding Example Projected on Second Screen:

Product In-home Study

Midwest Visit 4: Doris & John

Top-Level Summary

- Product customer since April 1998
- Doris purchased "The Product" with her husband
- Neither uses computer
- Had little trouble with setup
- Has used "The Product" very little and is unaware of many features
- Uses the keyboard for everything
- Internet novice



Background

Doris is a 65-plus-year-old woman with a slight Polish accent who lives with her husband, John, on the southwest side of Milwaukee in a middle income neighborhood. Their current income is in the \$30,000 - \$49,999 range. They are an interesting couple with a great sense of humor. They have been in their home for 29 years, and they take great pride in it. Their yard is meticulously and beautifully landscaped. They have done major remodeling over the years, and the result is a very comfortable and spacious living area. The decorating reflects a sense of culture and intellectualism.

Doris has a thirst for knowledge, which made her interested in the Internet, and ultimately "The Product". She often listens to a late-night radio program that deals with UFCs. This is where she first heard a commercial for "The Product," about a year ago. John was skeptical, so they asked computer-experienced friends and family what they knew of "The Product". None of them knew about it, which maintained John's skepticism. He offered to buy Doris a computer, but she really didn't want all of the features other than the Internet. As they shopped, they would ask the electronics salespeople about "The Product," but they received little information. They found "The Product" and looked at it, but John was not comfortable that he'd have to buy the printer adapter if they wanted to hook up a printer. Finally, they found a knowledgeable salesperson at Sears, who answered all of their questions and sold them "The Product".

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Sample Exercise Handout:

Field Study Exercise:

Your site:

Contact name:

Exercise goal

Your goal is to find out as much as you can about the site you're visiting. Think of this as a "Day-in-the-life" study. You'll want to observe, interview, and collect artifacts. Because you don't have a specific product in mind, you probably won't have a set of specific design questions. This is your chance to try out some of the techniques we've been talking about. Don't worry that you're not as prepared as we know you would be for a real field visit. When you return, we'll talk about what you would do differently if you were doing this "for real."

Your tasks

1. Your team will decide what types of data you plan to collect, and how you will split duties (asking questions, taking photos, observing, note-taking, etc.)
2. Next, you will conduct observations and interviews. You will have an extended lunch period to conduct your study.
3. Then, your team will analyze the results of your investigation and create deliverables. Your team should create several of these deliverables:
 - User profile
 - List of goals
 - List of attitudes
 - Storyboard
 - Photos and descriptions
 - Top-10 task list
 - Issues list
 - Workflow diagram
 - High-level design recommendations

Minimum and maximum number of participants

10 – 100