So, can you park here?

Photo: http://www.flickr.com/photos/y-a-n/24986220/
So, can you go here?
Who thought you would want to put a USB drive here?
Clearly, they did not conduct any usability tests

Welcome to Usability 101

Leslie Mathews,
HLA Conference

Image posted by Flickr user lumaxart used under the creative commons license [http://www.flickr.com/photos/lumaxart/2137737248/](http://www.flickr.com/photos/lumaxart/2137737248/)
85% of usability problems can be discovered by testing with five users

- Jakob Nielsen
  - “Why You Only Need to Test with Five Users”
“The ultimate user experience is improved much more by three tests with 5 users than by a single test with 15 users.”

Why?

• After the first five users, you will see the same trends over and over again.
• Seriously.
What does this mean?

• You can identify problems after testing with 5 users, fix them, and test the changes with a new group of 5 users

• “Test, Edit, Repeat”
  – Stephanie Willen Brown
What is Usability?

According to Jakob Nielsen:

“Usability is a **quality attribute** that assesses how easy user interfaces are to use. The word "usability" also refers to methods for improving ease-of-use during the design process. Usability is defined by five quality components:”
• **Learnability**: How easy is it for users to accomplish basic tasks the first time they encounter the design?
• **Efficiency**: Once users have learned the design, how quickly can they perform tasks?
• **Memorability**: When users return to the design after a period of not using it, how easily can they reestablish proficiency?
• **Errors**: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?
• **Satisfaction**: How pleasant is it to use the design?

-Jakob Nielsen

Usability testing in a Nutshell

• Find 3-5 (representative) users
• Give them realistic tasks and ask them to talk about what they are doing
• Identify major errors – where users consistently struggle
• Tweak, change design
• Retest with 3-5 more users
Real World Example: Uconn ERM

• In 2006, Librarians at University of CT conducted a series of usability tests on the ERM public interface (the database locator)
• Recruited undergrads, grads, and faculty.
  – Asked students who were in the library if they had 30 minutes to spare to help us out.
• Ran tests in an empty computer lab in the library
• We gave them a gift card for participating
  – it’s a nice thank you /incentive
• Sample task question:
  – Find articles about the housing market

  – We set a time limit of 3 minutes for each question. You will find that this seems like a very long time when you conduct a test.
Research Database Locator

The University of Connecticut subscribes to over 240 Web-Based, commercially-produced research and citation databases. Connecticut community.

Locate appropriate research databases with a keyword search:

Keyword:  

Searches are automatically truncated.
Experimental Keyword Search?:  

Enclose words in ""s to search as a phrase.
Use AND or OR to narrow your search.

Databases by Title
[A] [B] [C] [D] [E] [F] [G] [H] [I] [J] [K] [L] [M] [N] [O] [P] [Q] [R] [S] [T] [U] [V] [W] [X] [Y] [Z]

Browse a list of research databases by subject grouping:

- Arts and Humanities
- Business
- General and Multidisciplinary
- Sciences
- Social Sciences

Bugs or Suggestions?
The Electronic Resource Management system is still in development. If you find any bugs or problems, or if you would have a report.
You are currently logged in as: sbrown (Logout)

Databases By Keyword : housing market

Keyword: housing market
Searches are automatically truncated.
Experimental Keyword Search?: [ ]
Enclose words in ""s to search as a phrase.
Use AND or OR to narrow your search.

Click on titles for full content and access information.

0 result(s) found
Showing 0-0
Where can you find articles on Depression?

Databases by Title : D

[A] [B] [C] [D] [E] [F] [G] [H] [I] [J] [K] [L] [M] [N] [O] [P] [Q] [R] [S] [T] [U] [V] [W] [X] [Y] [Z]

Click on titles for full content and access information.

22 result(s) found
Showing 1-22
1: d'Alembert's and Diderot - Encyclopédie
   2,000 articles written by more than 140 contributors, the Encyclopédie was a massive reference work for the arts and sciences. Full title: Encyclopédie ou Dictionnaire Raisonné des Sciences, des Arts et des Métiers, par une Société

2: D&B Key Business Ratios
   Financial statements of U.S. corporations, partnerships, and proprietorships. 14 ratios include solvency, efficiency, and profitability. Calculate key business ratios or identify key relationships between financial data.

3: D&B Million Dollar Database
   Information (address, sales, executive biographies, size of work force, SIC, etc.) on over 1,000,000 public and private US businesses with over $1 million in sales.

4: Database of International Rehabilitation Research (CIRRIE)
   Citations (with links to abstracts) to disability and rehabilitation journals, only for research conducted outside the United States.

5: DB Million Dollar Database
   Information (address, sales, executive biographies, size of work force, SIC, etc.) on over 1,000,000 public and private US businesses with over $1 million in sales.

6: Defining Gender
   Fully digitized rare primary source literature. Material has been selected from a European perspective with an emphasis on British and European sources.

7: Deutschsprachige erzaehlende Literatur vom Mittelalter bis zur Gegenwart
   German language narrative literature from the Middle Ages to the present day.

8: Diccionario de la Lengua Espanola
   Spanish language dictionary on CD-Rom.

9: Dictionary of National Biography

No Library

Library
Research Database Locator: Find Articles & More

By Subject
- General (interdisciplinary topics)
- Agriculture
- Animal Science
- Anthropology
- Art & Art History
- Biology
- Business
- Chemistry
- Classics
- Communication Sciences
- Dramatic Arts
- Economics
- Education
- Engineering
- Environmental Science
- Gay, Lesbian, Bisexual & Transgender Studies
- Geography & Geology
- Health & Medicine
- History
- Human Development & Family Studies
- Human Rights
- Journalism
- Judaic Studies
- Kinesiology, Exercise & Sport
- Latin American Studies
- Law
- Linguistics
- Literature
- Marine Sciences
- Mathematics & Statistics
- Medieval Studies
- Music
- National Defense & Homeland Security
- Natural Resources

Find Databases Of: Dissertations & Theses • e-Books • Images • Newspapers • Statistics (UConn Institutional Repositories)
Best Bet Databases in Anthropology

- **AnthroSource ★**
  Articles from 15 scholarly journals published by the American Anthropological Association (AAA).  
  [Details](#) - [Terms of Use](#)

- **Scopus ★**
  Scholarly journal articles with a heavy emphasis on science topics. A great database for high quality scholarly articles on any topic. International scope. Excellent for citation searching. 1996-present for citation searching; 1966 to present for general searching.  
  [Details](#) - [Terms of Use](#)

- **POPLINE ★**
  Summarizes scholarly articles in population, family planning, and related health issues. 1970-present.  
  [Details](#) - [Terms of Use](#)

[Show all Anthropology databases](#) (10 more)
Let’s watch a test in action

• Example of a usability test using the talk aloud protocol

http://www.usertesting.com
Usability Testing Techniques

- Talk Aloud Protocol (also known as “Think Aloud Protocol”)*
- Focus groups
- Interviews
- Card sorting
- Eye tracking
- Five second test
Talk aloud protocol – how it works

- Ask the user to talk aloud as he or she performs the given task (without interrupting or giving suggestions)
Steps: How to conduct a usability test using the talk aloud protocol

• First, find someone else’s test. No need to reinvent the wheel.

• Great examples
  – Hunter College study published in RUSQ
    • “How Twenty-Eight Users Helped Redesign an Academic Library Web Site”
  – Steve Krug’s book
    • *Don’t Make Me Think*
  – Usability.gov
Create representative tasks

• Realistic, typical tasks, e.g. find a book
• Do not use library jargon
• Do not ask leading questions
  – Example leading question: How would you request an interlibrary loan?
  – Rephrase: How would you get books or articles that are not available through our library?
Recruit (representative) users

• Get representative users, but any users are better than no users!
• Need to provide some incentive
  – Can be small, but gift cards are nice ($10)
• This can be a good public relations tool as well as a positive educational experience for test subjects
• This is not a perfect statistical sample and it never will be
What you will need:

- A private room like a conference room or someone’s office
- A computer with Internet connection set to your web page as the home page
- A test script
- A task list
- A stop watch
- Test facilitator and two note takers though you can get away with one.
If you have two note takers, one can record *where the user clicked*, hovered mouse, etc. and the other can record *what the user says*. Decide this ahead of time!
• Use a test script that emphasizes you are testing the SITE and not the user
  – Here is Steve Krug’s sample test script – can download and modify http://www.sensible.com/

Sample Test Script

Hi, ______. My name is Steve Krug, and I’m going to be walking you through this session.
You probably already know, but let me explain why we’ve asked you to come here today: We’re testing a web site that we’re working on to see what it’s like for actual people to use it.
I want to make it clear right away that we’re testing the site, not you. You can’t do anything wrong here. In fact, this is probably the one place today where you don’t have to worry about making mistakes.
We want to hear exactly what you think, so please don’t worry that you’re going to hurt our feelings.¹ We want to improve it, so we need to know honestly what you think.
As we go along, I’m going to ask you to think out loud, to tell me what’s going through your mind. This will help us.
If you have questions, just ask. I may not be able to answer them right away, since we’re interested in how people do when they don’t have someone sitting next to them, but I will try to answer any questions you still have when we’re done.
You may have noticed the microphone. With your permission, we’re going to record what happens on the computer screen and what you have to say. The recording will be used only to help us figure out how to improve the site, and it won’t be seen by anyone except the people working on the project. It also helps me, because I don’t

¹ If you didn’t work on the part that’s being tested, you can also say, “Don’t worry about hurting my feelings. I didn’t create the pages you’re going to look at.”
Run the test

• Use a set procedure and run all the tests the same way
  – Read the script to the user
    • The script tells the user you are testing the site and not him or her
  – For a sample script http://www.sensible.com/
  – Have user sign any waiver forms if you are recording
  – Thank the user!
Some tips

• Gather demographic data at the beginning of the test session
  – E.g. class year, experience with the library
• Ask the user to begin at your home page at the start of every task
• Go through the tasks
  – Set a time limit and stick to it. This saves the user from getting overly frustrated/embarrassed
• Prompt the user if he or she is not speaking
• Ask qualitative questions at the end of the test
Analyze results

• Immediately following test, talk over results with your group
• Write up synthesis while it’s fresh in your mind
• You don’t have to record the session unless you want to, however, if you do so, you will have to create a release form for the user to sign.
• Run several rounds of tests with 3-5 users, making improvements after each round

Image from Flickr user redbetty black [http://www.flickr.com/photos/redbettyblack/331260671/](http://www.flickr.com/photos/redbettyblack/331260671/) used under creative commons license
Other methods to think about

- Caveat: don’t use JUST ONE method unless it’s actual testing using the talk aloud protocol
- These are supplemental
Focus groups

- People might not tell the truth
- Uconn ERM – people failed to do all of the tasks and then when asked to rate the site gave it 5 out of 5 stars
- What people say they will do can be different from what they actually do

This can be good public relations to show your constituents that you care about their opinions.
Interviews

• Asking users how they conduct research to find out their habits
  – Ask open ended questions
• Interviews can be part of a usability test, ask questions at beginning or end of the test
• Remember that what users say that would do can be very different from what they would actually do
Card Sorting

• “Card sorting is a user-centered design method for increasing a system’s findability. The process involves sorting a series of cards, each labeled with a piece of content or functionality, into groups that make sense to users or participants.”
  – Card Sorting, a Definitive Guide
  • http://www.boxesandarrows.com/view/card_sorting_a_definitive_guide
• Use it to find out if your labels and categories make sense to users

Eye Tracking

- Morae software
- Cheap alternatives to Morae (Silverback - for mac)
- This can show you where users are looking on a page, but it can be technical and expensive

Note that this is a typical “F” pattern
Five second test

• You can always put your site up on the five second test web site to find out what attracts users’ eyes on your page

• http://fivesecondtest.com/

• As I was doing some tests at this site, Boulder Public Library came up! Bravo
• “Learning something is better than learning nothing” – Chas Grundy
  – “Usability Testing on a Budget”
Go for it! It’s fun and your users will thank you!