Web Site Usability Testing at the Libraries

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Why Do Usability Testing?

- Replaces “opinion” with user centered data
- Prevents or reduces internal arguments among web committee members, administrators and others
- Ensures a quality interface tailored to the users’ needs
Attributes of Usability

- Effectiveness – ease of use
- Efficiency – how well does it do what it needs to do?
- Context of use – how users use it
- Ease of learning - learnability
- User satisfaction – is it enjoyable?
Why Do Usability Testing at the Libraries?

○ The Libraries (and UNT as a whole) spend millions of dollars annually on research materials, many of which are available on the web

○ Users of these resources need to be able to access them efficiently and effectively to maximize the value of the dollars spent
Purpose of Research

- This project utilizes the formal usability study technique and focus groups to determine how well one of the Libraries’ sub sites is working for the users.
Materials and Methods (M&M)

- Thirty students
  - 10 undergraduates
  - 10 graduates
  - 10 distance learners
- Formal usability studies (FUS) and focus groups (FG)
Materials and Methods – Site Used for the Project
Materials and Methods – Web Site

- Ask A Librarian sub site was chosen because:
  - Small, self-contained site
  - “Owned” by members of Usability Study Group
  - Free of politics
  - Marketing opportunity
FUS Materials & Methods: Venue and Equipment

- Private room with computer
- Decorated the room (reduce test atmosphere)
- Gave students choice of IE/Netscape
- WinWhatWhere software to record path taken by student
- Cleared visited links after each test
FUS Materials/Methods: Testing Procedure

- Explained test to students: how, why, rationale, “It’s not you, it’s the page”!
- 8 tasks, previously beta tested
- Allowed 2 hour blocks of time, average test time was 35 minutes
- Students were given paper with questions written out – easier for them to read the question
FUS Materials/Methods: Testing Procedure (2)

- Allowed a maximum of 3 minutes per question
- Moderator and an observer present
- Student was asked to speak aloud so observer could note the route taken
- Recording sheet – path taken, time, success, problems
FUS Materials/Methods: Testing Procedure (3)

- Post-test questionnaire (likes/dislikes, improve services)
- Demographics, computer skills, time at UNT, discipline
- Chocolate bar (to lessen any negative result of test)
FUS Materials/Methods: Data Collection

- Success rate – how many students correctly found the answer
- Effectiveness (time taken)
- Number of clicks (path taken)
- Satisfaction data (additional or supplemental)
Results – Analysis for FUS

- Success, time taken, # of clicks, pathway
- Average and median
- Took out non-completions for a sub-analysis
- Shows problems – some obvious, some less obvious
FUS Results: Example 1

Question 1: Find the contact information for the Science and Technology Library Reference Desk.
- Success Rate: 28/30 (93.3%)
- Average Time: 74s, 66s
- Low Time: 10s; High Time: 3:00, 2:56
- Low Clicks: 2; High Clicks: 11
FUS Results: Ex. 1 Comments

- Several people missed link due to rest reading Willis, “sandwiched”
- **Quick scanning** does not make S/T stand out. Many people had to come back to it and take more time to read
- Sci/Tech Library and Info Science Bldg look like one link
- Distracted by contact info on the footer
Question 2: How do you exit the chatroom service?

- Success Rate: 25/30 (83.3%)
- Average Time: 1:14 (74s), 53s
- Low Time: 5s; High Time: 3:00, 2:12
- Low Clicks: 1; High Clicks: 9
FUS Results: Ex. 2 Comments

- Students thought they had to enter the chatroom to find this
- Annoyed that it wasn’t the normal “close window” type of command
- The pop up box was frustrating for those who kept returning to the page
- General lack of reading. It’s the last instruction. Maybe better to be a “note” at the top of the page
## Formal Usability Study Results

***The second number after a comma signifies the result when all non-completion results are removed.***

<table>
<thead>
<tr>
<th>Q.#</th>
<th>Success Rate</th>
<th>Average Time</th>
<th>Low Time</th>
<th>High Time</th>
<th>Low Clicks</th>
<th>High Clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>28/30 (93.3%)</td>
<td>1:14, 1:06</td>
<td>10s</td>
<td>3:00, 2:56</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>25/30 (83.3%)</td>
<td>1:14, 53s</td>
<td>5s</td>
<td>3:00, 2:12</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>28/30 (93.3%)</td>
<td>56s, 47s</td>
<td>5s</td>
<td>3:00, 2:00</td>
<td>0</td>
<td>6, 5</td>
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<tr>
<td>4</td>
<td>12/30 (40.0%)</td>
<td>2:37, 1:18</td>
<td>30s</td>
<td>3:00, 2:55</td>
<td>2</td>
<td>16, 12</td>
</tr>
<tr>
<td>5</td>
<td>23/30 (76.7%)</td>
<td>1:14, 1:13</td>
<td>16s</td>
<td>3:00, 2:55</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>30/30 (100%)</td>
<td>17s</td>
<td>5s</td>
<td>2:37</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>14/30 (46.7%)</td>
<td>2:12, 1:39</td>
<td>30s</td>
<td>3:00, 2:55</td>
<td>1</td>
<td>16, 14</td>
</tr>
<tr>
<td>8</td>
<td>22/30 (73.3%)</td>
<td>1:40, 1:19</td>
<td>5s</td>
<td>3:00, 2:50</td>
<td>1</td>
<td>18, 11</td>
</tr>
</tbody>
</table>
FUS Questions

1. Find the contact information for the Science and Technology Library Reference Desk.
2. How do you exit the chatroom service?
3. Using this site, find the Library Personnel Link.
4. If you want in depth reference assistance from the music librarian, can you find information for this service?
5. Find the name of the curator for Rare Books.
6. When you use email reference, how soon can you expect a response?
7. Does UNT Libraries offer an online database search service?
8. Find help online after the chatroom is closed.
FG Materials & Methods: Venue and Equipment

- Six focus groups, 8 questions
- 2 groups for each category
- Two hour blocks of time
- Room with a big table
- Tape recorder
FG Materials and Methods: Venue and Equipment (2)

- Moderator and observer
- Water and cookies/muffins
- Questions printed out with lots of comment room
- Provided pens
FG Materials and Methods: Procedure

- Began with confidentiality and respect of others’ opinions
- Introductions
- Round robin then free form
- Moderator and observer would respond to “quick reference” types of comments
FG Analysis of Results

- Entered all comments in Word table, keeping track of FG #

- Looked for similarities in comments and collated
Focus Groups Results

- Icons or graphics would be useful, especially for ESL students
- Bold or otherwise note important information if buried in text
- Use of bullets or steps would be beneficial for instructions and tutorials
Focus Groups Results (2)

- Chatroom could use some extra color
- Terminology was an issue in some cases
- Links were very good (noticeable as being links) but sometimes too many and too many leading to the same thing
Focus Groups Results (3)

- Make sure each link, description and page indicates its purpose.

- There were also non-web related items discussed as well as specific library issues.
Recommendations For Site

1. Link Reference Desks from Ask A Librarian page to the Reference Desk pages for each listed Library. Students were disconcerted when they arrived at a page that did not list “reference”. 
Recommendations

2. Chatroom:

- Move the instruction for exiting up to the top and make it noticeable.
- Many participants wanted just to log in since the instructions don’t show without scrolling.
- Students who use chatrooms were frustrated that it wasn’t the usual “close window” command.
Recommendations

3. Annotations (brief overviews) were considered “too long”. Shorten or highlight important text. A specific recommendation is to bold the “in-depth” aspect of Reference By Appointment.

4. Standardize the time for an e-mail reply (24, 24-48 or 48 hours).
Recommendations

5. Modify text under Reference Desks concerning the Sci/Tech Library as the current format makes it difficult to distinguish between the Sci/Tech Library and the ISB Building map, and a quick scan does not indicate a difference from the list of Willis items to the Sci/Tech link.
Recommendations

6. Standardize use of General Reference and Humanities and Social Sciences on web pages.

7. Standardize use of “service desk” and “reference desk”
Recommendations

8. Have all links change color after being visited – the Reference Desks, E-mail Reference, and Reference by Phone links do not.

9. Modify the “after hours” help link on the chatroom page to indicate that e-mail is available 24 hours a day.
Questions for Focus Groups

1. What are three things that make this site (both the Ask A Librarian and the overall Libraries site) easy to use?
2. What were three difficulties you encountered when using the Libraries' site?
3. What are three ways we could improve the Libraries’ site?
4. What are three things we could do to improve our services?

   - Virtual reference is essentially online communication between yourself and a librarian.

   1. What would you expect from “virtual reference”?
   2. What would make “virtual reference” attractive to you?
   3. How should the Libraries market and promote a virtual reference product?
   4. What would you find difficult or uncomfortable about using a virtual reference product?