Website Usability Studies at UNC Charlotte’s Atkins Library

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Total Enrollment: 27,238

Library sized for: 14,000

Expected to be: 35,000
“Our goal should be to provide the same level service/access whether our patrons are visiting the library physically or virtually.”
Evolution >> library.uncc.edu

“I know what the site should look like!”
Services, Departments, Content Blocks .....
Usability Testing

“Usability testing examines how people perform specific tasks, guiding the definition and implementation of functionality” (Goodman 73).

“The usability test will tell you whether your audience can use what you’ve made” (Goodman 11).

- Identify problems
- Reveals difficult-to-complete tasks
- Confusing language
- Improved the product
- Decreased competition
- Increased functionality, efficiency, and desirability
Five Es

- Effective
- Easy to Learn
- Engaging
- Efficient
- Error Tolerant
Phases of IT Projects

• Initiating
  • The project requirements, scope, and objectives are defined.

• Planning
  • The project schedule and budget are defined, and the responsibilities of team members are clarified.

• Executing and Controlling
  • The new product or service is built and tested. This involves providing the necessary training, assembling the new product or service, monitoring its performance, and fixing any bugs.

• Closing
  • The new product or service is delivered, all the necessary documentation is completed, and the lessons learned are noted.
Usability Testing Process

Usability testing is almost never a one-time event in a development cycle for a product. Every round of testing should focus on a small set of features.

Four main types of usability testing

- Exploratory
- Assessment
- Comparison
- Validation
Instructional Design

- **Analysis**
  - Environmental Scan
  - Needs Assessment

- **Design**
  - Graphic Interface
  - Wireframes

- **Development**
  - Prototypes
  - Mock-ups

- **Implementation**
  - Training
  - Testing

- **Evaluation**
  - Formative
  - Summative
Rapid Prototyping

Wireframes

Paper Prototyping
J. Murrey Atkins Library Website Homepage Usability Study (Fall 2014)

Methodologies and Supporting Tools

- Focus Group
- Paper Prototypes
- Tasks-based testing
- Google Analytics
- HTML_CodeSniffer

Recruitment

- J. Murrey Atkins’ social media accounts
- Posters placed throughout the library
- Incentives
Focus Groups & Paper Prototypes

• A focus group is a “way to better understand how people feel or think about an issue, product, or service” (Krueger & Casey 4) known as needs analysis.
  • Qualitative data
  • Needs-based analysis

• Paper Prototypes is a “quick and cost-effective technique for identifying major usability issues early with sketches and paper” (Nielson).
Focus Groups & Paper Prototypes

• Combined into one session.
• 8 undergraduate students & 2 graduate students that represented 9 different areas of study.
• Survey
  • Field of study
  • Year in school
  • Frequency of use
  • Usage
Focus Group

• Discussion Questions
  • What do you use the most on the library website?
  • How often do you use the library website?
  • What do you like the best about the library website?
  • Have you had any issues with the library website? If so, what have they included?
    • How significant was this issue?
    • What do you think the cause of this issue?
    • What do you think would improve or fix this feature/issue? What do you think the most important feature of the library website is and why?
  • If you could add a feature to the library website, what would it be and why?
Paper Prototyping

- 13 Pieces of paper
  - 11 pieces represented specific features
  - 2 pieces were blank
- Most utilized features
  - Hours
  - Computer availability
  - Group Study Rooms
  - WMS Search Engine
  - “My Library Account”
  - News & Events
  - eTextbooks
Tasks-Based Testing

• Usability testing examines how people perform specific tasks, guiding the definition and implementation of functionality” (Goodman 73). This form of usability allows for accurate and comparable data analysis between multiple participants. In addition, this method is a reliable way of gauging usability at any stage of development.

• Consent Forms
• Morae
  • Audio Recording
  • Video Recording
  • Screen Recording
Tasks-Based Testing

- 14 participants that represented ten undergraduate students and four graduate students.
- Pre-test survey
  - Navigate to the library website.
  - When you visit the library website, where is the first place you go? (show me your process, how do you get there?)
- 11 identical tasks
  - Locate the library’s hours for January 6, 2015.
  - Review your library account’s checkouts, holds, and charges.
  - How many laptops are available for checkout?
- Post-test Survey
  - Is there any features you learned about today that you want to explore further or that you will use in your future visits to the library site?
## Google Analytics

<table>
<thead>
<tr>
<th>Page</th>
<th>Pageviews</th>
<th>Unique Pageviews</th>
<th>Avg. Time on Page</th>
<th>Entrances</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. /</td>
<td>290,001</td>
<td>183,861</td>
<td>00:04:30</td>
<td>178,901</td>
</tr>
<tr>
<td>2. /groupstudy/book/day.php</td>
<td>271,068</td>
<td>12,075</td>
<td>00:00:58</td>
<td>10,339</td>
</tr>
<tr>
<td>3. /groupstudy/spaces/availability.php</td>
<td>60,323</td>
<td>15,111</td>
<td>00:00:30</td>
<td>8,807</td>
</tr>
<tr>
<td>4. /groupstudy/spaces/</td>
<td>26,293</td>
<td>13,502</td>
<td>00:00:32</td>
<td>8,985</td>
</tr>
<tr>
<td>5. /groupstudy/spaces/confirm_booking.php</td>
<td>17,643</td>
<td>11,709</td>
<td>00:01:07</td>
<td>785</td>
</tr>
<tr>
<td>6. /newmobile</td>
<td>14,305</td>
<td>10,929</td>
<td>00:01:33</td>
<td>10,420</td>
</tr>
<tr>
<td>7. /login/</td>
<td>13,639</td>
<td>10,682</td>
<td>00:02:02</td>
<td>1,961</td>
</tr>
<tr>
<td>8. /computers/</td>
<td>13,466</td>
<td>1,831</td>
<td>00:02:01</td>
<td>442</td>
</tr>
<tr>
<td>9. /hours/</td>
<td>11,226</td>
<td>8,747</td>
<td>00:01:00</td>
<td>4,969</td>
</tr>
<tr>
<td>10. /groupstudy/book/view_entry.php</td>
<td>7,861</td>
<td>3,534</td>
<td>00:00:26</td>
<td>485</td>
</tr>
<tr>
<td>11. /caos/coursereserve</td>
<td>6,838</td>
<td>5,682</td>
<td>00:02:33</td>
<td>2,071</td>
</tr>
<tr>
<td>12. /newmobile/</td>
<td>5,336</td>
<td>3,194</td>
<td>00:01:06</td>
<td>1,163</td>
</tr>
<tr>
<td>13. /groupstudy/spaces/edit_entry.php</td>
<td>5,177</td>
<td>3,213</td>
<td>00:00:22</td>
<td>767</td>
</tr>
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<td>14. /newmobile/hours</td>
<td>3,996</td>
<td>3,582</td>
<td>00:01:44</td>
<td>1,518</td>
</tr>
<tr>
<td>15. /login</td>
<td>3,841</td>
<td>3,205</td>
<td>00:01:32</td>
<td>2,120</td>
</tr>
</tbody>
</table>
HTML_CodeSniffer

- **Accessibility Standards**
  - *U.S. Section 508 Standards*
    - Guidelines developed by the Web Accessibility Initiative of the World Wide Web Consortium
    - Establish a minimum level of accessibility
    - The homepage met all of the standards
  - **WCAG**
    - Standards meet accessibility for a wider range of disabilities
    - Met majority of the standards
Recommendations

1. Add a rotating banner to the homepage.
2. Consistently label features throughout the website.
3. Add an appointment widget to each subject librarian page.
4. Reduce the clicks to view “My Library Account.”
5. Turn off the old mobile site.
6. Redirect the old group study application.
7. Fix the broken MAC laptop availability.
8. Revise the navigation menu items.
Questions?

• To view this report and other usability reports visit, http://guides.library.uncc.edu/usability

IT Project Management Essentials: Introduction to IT Project Management, Skillport.com


Usability Libguide, [http://guides.library.uncc.edu/usability](http://guides.library.uncc.edu/usability)