Chad Haefele
For TRLN Discovery

Usability Test: *TRLN Discovery Preliminary Testing, May 2018, UNC*

Recommendations

1. Make the Expand to TRLN button more prominent, and re-label it to avoid the term 'TRLN'.
2. Standardize the No Results message, and it should include an option to expand to TRLN.
3. Evaluate options, if any, for re-naming the Region and Location facets to avoid confusion between them and the expand to TRLN link.
4. Give more attention to the Advanced Search page, since more users (7/10) made use of it than expected. It should be the subject of more detailed future tests.
5. While users appreciated that the Location facet was pre-expanded, in general they did not seem to expect that others be pre-expanded.
6. This test did not include any tasks related to online items. Once the project is further along, this should be addressed.

Background

The general purpose of this study is to evaluate progress on TRLN Discovery and provide guidance for future development of the interface.

From 5/10/18 to 5/14/18 we recruited 10 users at a table set up in the lobby of Davis Library at UNC. Each participant was given a $15 Amazon gift card in exchange for their time. Chad Haefele served as moderator, and Tabitha Frahm took notes.

Duke's instance of TRLN Discovery (https://lib-trln-blacklight-dev-01.oit.duke.edu/) was used for testing due to instability in http://discovery.trln.org.

Questions we hoped to answer through this study:

1. Can users perform basic searches and interpret results in the current version of TRLN Discovery?
2. Can users expand their results to include items at other TRLN libraries?
3. Can users expand their results to include items at other libraries?
4. Do users notice the facets? Do they interact with them?
5. Can users interpret the number of results displayed by each facet?
6. What features and design elements could be changed to make TRLN Discovery more usable?

For more information, please contact chaefele@email.unc.edu

Participants

Participant demographics:

- 3 Undergraduates (1 was a Davis Library service desk employee, but did not disclose this until near the end of the test)
- 3 Graduate students
- 2 University staff
- 1 Community member
- 1 Doctoral candidate

Pre and Post questionnaire responses are available at links in Appendix B.

Lisa Croucher happened to be passing by during a lull, and asked to participate. She completed about half the tasks before another participant arrived. Her results aren't included in analysis below, but she praised our work and was able to use the system effectively.

Key findings

1. Can users perform basic searches and interpret results in the current version of TRLN Discovery?
   - All participants were able to perform basic exploratory and known-item searches and interpret the information in the brief records view.
   - 8/10 participants used the individual item view. The other 2 did not until prompted. Every user who successfully navigated to the item view was able to find basic bibliographic information on the page
   - 7/10 users made use of the advanced search form at some point in the process. 2 started their search there. One had very strong opinions about how the advanced search form should work – they didn't like the any/all distinction, and would have preferred more granular Boolean controls. They also requested a 'Not' option.
   - 4 users were confused about the scope of TRLN Discovery, especially whether it contained journal articles.
2. Can users expand their results to include items at other TRLN libraries?
   - 4/10 users (3 graduate students and a doctoral candidate) discovered and used the expand to TRLN link on their own. Another 2 found the link after we told them that such a button existed. 1 user did not know what to expect when they clicked it.
3. Do users notice the facets? Do they interact with them?
   - 5/10 users used the Resource Type facet to answer "how many of these items are books?". The rest assumed that all results are books.
   - 7/10 users interacted with or consulted the facets for quantity information on other questions. The other 3 counted records in the results list when asked questions like "how many of these results are in German?"

- Whether a facet was pre-expanded or not did not seem to have an impact on discoverability. Both types were used the same amount.

4. What features and design elements could be changed to make TRLN Discovery more usable?
   - 8 users did not know what 'TRLN' means. Of the 2 who did, 1 was an employee at the Davis Library service desk.
   - 7 users expressed unprompted interest in autocomplete.
     - 4 were disappointed that it wasn't available,
     - 3 mistook the browser's suggestions from from previous searches done during tests as server-side autocomplete and noted how glad they were that it's a feature.
   - 2 users expressed unprompted interest in the Search History option.
   - 2 users (1 undergrad, 1 graduate) were confused by the differences between the Region facet, Location facet, and expanding to TRLN.
   - 1 user (a graduate student) was unable to complete a search task, got frustrated, and noted they would then use the chat option for help if this was the current UNC catalog – but there is currently no chat button available in TRLN Discovery.
   - 1 user (an undergraduate) was confused between the NCSU and NCCU acronyms.
   - While users didn't notice this issue, I noticed that the No Results screen is inconsistent and confusing.
     - If an advanced search with multiple fields filled in produces 0 results, the message sometimes suggests expanding to TRLN. All 3 users who encountered this message made use of it: https://lib-trln-blacklight-dev-01.oit.duke.edu/catalog?utf8=%E2%9C%93&op=AND&all_fields=&title=&author=joseph+collins&subject=amphibians&isbn_issn=&sort=score+desc%2C+publication_year_isort_stored_single+desc%2C+title_sort_ssort_single+asc&search_field=advanced&commit=Search
     - This useful message often does not appear if different combinations of fields are filled out. We were unable to diagnose exactly what combination of factors causes the difference in messages.
     - No combination of tested searches in the Basic search widget produced this suggestion
     - **Recommendation:** Standardize the No Results message, and it should include an option to expand to TRLN.
   - 2 users were frustrated that clicking from search results into the advanced search form does not preserve search terms.
   - 6 users looked for a Request button after finding an item at another school. All 6 had requested books for delivery before.

Appendix A: *Test Script*

Hello [NAME]. Thank you for volunteering to participate in this study. My name is [NAME] and I will be walking you through our tasks today. I will mostly be reading from a script to ensure each testing session is consistent as possible.

The goal of this study is to test the usability of a new search tool for library resources and materials. You may notice that the website says "Duke Libraries" at the top of the page. This is simply because we are conducting a test on a version of the website, and UNC's is not yet complete.

All of the tasks we are going to complete today should take less than a half hour, but don't worry about going too fast or too slow. There is no right or wrong action, because I am testing the system, not you. I will ask you to think aloud while you complete tasks using the system so that I can get an idea of the thought process behind your behaviors. Your input is very valuable to our research so please be as honest as possible when providing feedback. Do you have any questions for me so far?

With your permission, I will be recording video and audio of this testing session. These recordings may be shown to other stakeholders but will not be made public. The recordings and any other data collected from this study will not be tied to you in any way.

I have here a consent form for you to sign. Please read through the form and let me know if you have any questions. Once you've finished, if you consent to participating in the study please sign the form and return it to me.

[CONSENT FORM]

Thank you.

Before we get started, I'd like you to answer a few questions about your previous experience. I have the questionnaire pulled up on the computer. Please take a moment to complete it. Let me know if you have any questions.

[PRE-TEST QUESTIONNAIRE] demo, experience

Thanks. If you are ready to begin, I am going to start recording.

[CAMERA ON]

Now I'm going to give you a series of tasks to complete. You will be given up to five minutes to complete each task. Please remember to think aloud as you complete each task.

Chad Haefele
For TRLN Discovery

[TASK 1]

As I mentioned earlier, we're testing out a new search tool for library resources and materials. To start, would you please try using the application for a few minutes and letting us know your thoughts and opinions? You may search for a subject of your own choosing.

[OBSERVE]

Thanks.

[TASK 2]

Ok, next I'm going to give you another task and then ask you some questions about it.

Let's say you're doing research on "amphibians" Try searching for that topic. Remember to think aloud while searching.

[OBSERVE: does user use "start over"? back button? just uses the search widget?]

I have a few questions for you about the search results: [maybe randomize the order of these]

1. How many of these results are books?
    [OBSERVE: does user look to facet in sidebar?]

2. How many are written in German?
    [OBSERVE: does user make use of modal facet expansion?]

3. How many are available at Duke's Library Service Center?
    [OBSERVE: does user use location facet tree?]

Thanks.

[TASK 3]

Next, I would like you to expand your search results to include other institutions. How many books on amphibians are available at all TRLN institutions? Please think aloud as you complete this task.

[OBSERVE]

[TASK 4]

Now I am going to ask you to select the second item in the list.
("Amphibians in captivity"–book–available at NCSU)

[maybe randomize the order of these]

1. Where can you access this book?
    [OBSERVE: can user find and interpret local availability?]

2. When was it published?
    [OBSERVE: can user find and interpret metadata?]

3. What are the main topic covered by this book/article?
    [OBSERVE: does user engage full-record page? can user find and interpret metadata?]

[TASK 5: lowest priority]

Next I'd like you to find books on amphibians written by Joseph Collins. Remember to think aloud as you complete this task.

[OBSERVE: does user make use of advanced search, are they able to generate results?]

Can you tell me where these books are located?

[OBSERVE: Note: there should be 2 books available at NCSU on amphibians written by Collins.]

Now I'd like you to run a search for as many books as you can find that were written about amphibians or written by Joseph Collins. Let me know how many you are able to find.

[OBSERVE]

[END TASKS]

Great! That concludes our final task. Do you have any additional comments or questions for me at this time? Thanks. I also have some additional questions I'd like to ask you.

[FOLLOW-UP INTERVIEW QUESTIONS]

Thanks! I'm going to stop recording now.

I have another questionnaire on the computer for you to complete. Take as much time as you need to and let me know whenever you are finished.

[POST-TEST QUESTIONNAIRE]

Do you have any more questions for me?

Thank you so much for your participation in this study.

Here is your [INCENTIVE] and a form for you to sign acknowledging your receipt of it.

Have a great day!

Pre-Test Questionnaire:
1. Which of the following describes you best?
    - Undergraduate student
    - Graduate student
    - Doctoral candidate
    - Faculty
    - Staff
    - Other: _____

2. IF UNDERGRAD/GRAD/DOC: How many years have you been enrolled at UNC?

    _____

3. IF UNDERGRAD/GRAD/DOC: What is your program of study?

    _____

4. IF FACULTY/STAFF: How many years have you been enrolled in your current position?

    _____

5. IF FACULTY/STAFF: What is your department?

    _____

6. On average over the last semester, how frequently have you visited the UNC Library website **for research purposes**?
    - Never
    - Once or twice
    - Monthly
    - Weekly
    - Daily

7. How familiar are you with using the library's XSYSTEMX to search for a book, article, or other materials?

    very familiar – moderately familiar – slightly familiar – heard of it – never heard of it

Post-Test Questionnaire:

1. Of the tasks you just completed, did you find any particularly challenging or confusing?

    _____

2. Was there anything you especially liked about the interface, compared to similar systems you may have used in the past?

    _____

3. Was there anything about the system you especially disliked?

    _____

4. Do you think you would use this system for your research?
    - Yes
    - No

5. IF YES: Why?

    _____

6. IF NO: Why not?

    _____

7. Do you have any other comments or suggestions?

    _____

Appendix B: *Pre and Post-questionnaire responses*

- Pre: https://docs.google.com/spreadsheets/d/1rn34nXZipXIB5lJciLYCTsC_t5HKUteIwiMs-3jXr9c/edit?usp=sharing

- Post: https://docs.google.com/spreadsheets/d/1cs712Dr0csZoqdEXvBUn3_VujQzCKz5436V2lPR9EVE/edit?usp=sharing