

# Usability Testing Report: Best Bets

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## Summary

On June 17, 2015, Emily Daly conducted usability testing in the lobby of Perkins Library. Six participants were interviewed between noon and 1:30 p.m. A pilot was conducted earlier in the day with an ADS student worker. The test consisted of three pre-test questions, one task, and five post-test questions. Each test took approximately ten minutes. See Appendix A for full usability test script.

In this test, participants were asked to search for one of five phrases (JSTOR, RefWorks, Web of Science, The Edge, Citing Sources) using the ALL search from the Libraries homepage. I then asked each participant to look at the ALL search results page for just five seconds. I then switched to a blank browser tab and ask participants to write down what they remembered seeing on the results page. This task was followed with questions related to the purpose and functionality of the ALL results page. See Appendix B for transcriptions of participants' written responses (note that three of six participants drew columns to represent the page's layout).

As part of this evaluation, we also considered use of the Best Bets feature in the ALL results interface. See Appendix C: Best Bets Use Report.

## Participants

The six total participants who completed this test included two sophomores, two seniors, one recent Duke graduate (2015), and one graduate student and represented the following departments: biology, computer science, German, history, and psychology; the two sophomores have not yet joined departments.

All participants were familiar with both the DUL homepage and ALL search, and all six participants use the ALL search at least monthly.

## Key Findings

1. Participants selected JSTOR, Web of Science, and RefWorks from the list of five possibilities; no participant searched for The Edge or Citing Sources (note that I encouraged participants to select a term they were familiar with or had searched for previously).
2. When asked to describe the primary purpose of the ALL search results, participants indicated that the results present a range of different types of resources, serving as a “broad overview” or “starting point” for a topic.
3. Zero participants said they would use the ALL search to search for the terms (i.e. Web of Science, RefWorks, JSTOR) they selected.
  - a. Four participants (67%) said they would use Google or their Internet Browser to go directly to their chosen resources.
  - b. Two participants (33%) said they would use the Research Databases portal on the DUL site to access their chosen resources (i.e. JSTOR, Web of Science).
4. When prompted to use the ALL search to identify results related to their chosen search terms, zero participants clicked the “Best Bet” for their particular resource.
  - a. All six participants (100%) scrolled through the results to find articles, catalog records, or websites related to their terms.
  - b. Four of six participants (67%) indicated their success with this task to be a “3” on a scale of 1-5 (5 being “extremely successful”); two participants (33%) indicated their success level to be a “4” on a scale of 1-5. Participants acknowledged that they were able to get to their desired resource but that their path was “not very efficient” or “took too many clicks.”
5. When asked at the end of the test to share their thoughts about and then engage with the “Best Bet” section of the results interface, five participants (83%) said they had not noticed the “Best Bet” before I asked about it.
  - a. One participant (17%) said she had noticed the “Best Bet” earlier in the test but glossed over it because she was not sure it was clickable. When prompted to explore the “Best Bet,” three additional participants (total of 67%) said they were not sure the link was clickable.
  - b. Two participants assumed the section was another title for the results page and said that they just “skip over the titles.”
  - c. Two participants (33%) attempted to click the “Best Bet” graphic before hovering over the linked text and discovering that it was clickable.
  - d. One participant (17%) thought the “Best Bet” was simply confirmation of his search term.

- e. All participants (100%) indicated that the “Best Bet” needs to be highlighted or otherwise given more prominence on the page.
6. All participants (100%) were extremely positive about the “Best Bet” after they engaged with it. Comments included “Oh, this is actually very good; it gives a top hit”; “The slight description is really helpful”; “This is really useful”; “Oh, that’s where I should have gone”; “That’s a lot easier. I learned something today. This is what I’ll do next time.”

## Key Recommendations

1. Feature the “Best Bet” in the ALL results interface more prominently, and highlight that the “Best Bet” is clickable.
2. Link the “Best Bet” graphic to its related resource. Continue to link to the text of the designated resource.

## Appendix A: DUL usability test script, Best Bets

Thank you for agreeing to take part in this study.

We are interested in learning more about how researchers use the Libraries’ ALL search results, and we’re hoping what we learn will help us improve current functionality.

I’ll ask you to complete one short task that involves the ALL search. Keep in mind that there are no right or wrong answers and that we’re testing our website — not you.

Okay, first some general questions:

1. Are you an undergrad, grad student, faculty member, staff member?
  - a. If you are an undergrad, what year are you?
  - b. If you are an undergrad, what is your major?
2. If you are a grad student or faculty or staff member, what department are you in?

Have you ever used the Libraries website (point to Libraries homepage) to conduct research?

  - a. If yes, would you say you use the Libraries homepage every day, every week, every month, once a semester, or less often?

3. If so, have you ever used the ALL search on the Libraries' homepage (point to ALL search)?
  - a. If yes, would you say you use the ALL search every day, every week, every month, once a semester, or less often?
  - b. If no, what do you tend to do/use when you visit the Libraries website?

Now I'd like you to complete a short task. I'm going to ask you to search for one of five things using the ALL search and then spend 5 seconds looking at the results interface and trying to remember as much as you can about the page. You'll then have 30 or so seconds to write down everything that comes to mind as you think about the page you've just seen, and after that I'll ask you a couple of questions about the page. As I said, we're testing the ALL results interface – not you; there are no right or wrong answers.

#### TASK

First, select one of the following five keywords to search for using the ALL search:

- RefWorks
- JSTOR
- The Edge
- Web of Science
- Citing sources

Now, search for this term, and spend 5 seconds looking at the results page. Again, try to remember everything you see in these 5 seconds.

Next, write down what you remember about the page. [*Move to another tab once 5 seconds are up, and give participants a moment to write down everything they remember about the page.*]

Okay, I have a few questions for you:

- a. What is the primary purpose of the ALL search results interface?
- b. Would you use this page to find information about the topic you selected?
  - a. If so, where would you click for this information (try to do this from memory, if

possible; if not, you can look at the page again)?

i. Now, show me where you would click to find information about this term.

Why did you choose to click here?

ii. What are your thoughts about what you saw when you clicked to find info?

b. If not, why not? Where would you go instead?

### POST-TEST INTERVIEW

- a. On a scale from 1-5 with 5 being extremely successful, how successful do you feel you were in finding information about the term you selected using the ALL search?
- b. What are your overall thoughts about the ALL search results interface?
- c. What would you change or improve about the ALL search results interface?
- d. What are your thoughts about the term, “Best bet”?
- e. Is there anything else you’d like to tell us about your experience today?

## **Appendix B: Transcribed participant notes after 5-second test**

**Pilot:** RefWorks, Services Quarterly (journal) – published monthly; CD Rom – other source under Media

**Participant 1:** (drew columns to represent page) Search – RefWorks – See all – Random names

**Participant 2:** (drew columns to represent page) Jstor Lagundia Cheryl – Articles (under articles, listed Jstor, Jstor, Jstor) – Books (drew picture) – Media

**Participant 3:** Articles; Citations; Web of Science; Research

**Participant 4:** a lot of scholarly articles on JSTOR on the left and, weirdly, a book about it

**Participant 5:** Article – website; Author – MedLine; list; citation

## **Appendix C: Best Bets Use Report**

April 22, 2015 through June 23, 2015

### **Summary**

This is an initial report on use of the Best Bets feature of the Bento Search interface.

Overall use of Best Bets is lower than expected relative to other result regions of the Bento Search interface. However, there was higher use of Best Bets in June than in May, possibly due to increased familiarity with the feature. Planned design changes to Best Bets may also impact use.

Most Best Bets are being clicked on less than half the time that they appear as results in the Bento interface. A well-performing Best Bet should be clicked on at least 50% of the time that it appears as a result. Given the newness of the feature, the small amount of data collected, and the planned design improvements, I do not recommend any changes to the list of Best Bets or the keyword triggers until after a full semester of use data is collected and analyzed.

## Overall Use of Best Bets Relative to Other Bento Search Modules

Data Source: Google Analytics

The Best Bet feature’s first full day of use logged by Google Analytics was April 21, 2015. This report analyzes data starting on April 22, 2015 to eliminate activity on the first day that was likely due to staff testing.

Table 1 shows the total number of clicks recorded by Google Analytics within each region of results in the Bento Search interface. This shows the relative frequency of use of different regions within Bento Search. The data indicates increased use of Best Bets in the feature’s second month of use. Best Bets is the fourth most frequently used region of the Bento Search interface after Articles, Books & Media, and Our Website. I would expect use of Best Bets to be somewhat higher, closer to 5% of overall use within the Bento Search interface.

**Table 1: Clicks on results within each region of Bento Search**

Event Action	April 22, 2015 to May 23, 2015		May 24, 2015 to June 23, 2015	
	Total Events	Total Percent	Total Events	Total Percent
Articles	15959	48.14%	13337	48.55%
BooksMedia	14442	43.56%	11861	43.17%
OurWebsite	2032	6.13%	1525	5.55%
BestBets	280	0.84%	406	1.48%
MainSearch	235	0.71%	224	0.82%
Images	87	0.26%	59	0.21%
OtherResources	67	0.20%	41	0.15%
ResearchGuides	49	0.15%	20	0.07%
TOTAL	33151		27473	

## Performance of Individual Best Bets

Data Source: Best Bets log file ([libcms.oit.duke.edu:/srv/web/libcms/backup/bestbets\\_log.txt](http://libcms.oit.duke.edu:/srv/web/libcms/backup/bestbets_log.txt))

The Best Bets log file began collecting data on April 21, 2015, recording an event each time a particular Best Bet result is served and also recording when a Best Bet result is clicked. The purpose of this data is to track the performance of specific Best Bets.

Table 2 shows the number of times each Best Bet result was served to the result interface along with the number of times that result was clicked. Together these numbers provide a click/serve ratio that demonstrates how often the Best Bet link is clicked on when it appears in the interface. A click/serve ratio of 50% or higher is desirable. The analysis of this data should be considered preliminary because in many cases the number of observations is quite small. A full semester of data will provide more meaningful results.

The ratio of clicks to serves is lower than 50% for most Best Bets. Factiva, MLA, RefWorks, Lynda.com, Harvard Business Review, New England Journal of Medicine, ProQuest Dissertations and Theses Global are exceptions, and appear to be performing well. There are also a number of Best Bets that have not been served at all. There is more variability in performance between the first and second month of use than I would expect. This could be due to the feature being new or the very short time period (and small number of data points) analyzed. A full semester of use should reveal more consistent results. It may be useful to track the search terms that trigger a Best Bet as well as search terms followed by a click on a Best Bet result. This would provide a way to identify Best Bet keyword triggers that are not effective.

Given the small amount of data collected, the newness of this feature, as well as the proposed design changes to Best Bets, I do not recommend any changes be made to the list of Best Bets or the keyword triggers until a full semester of data is collected and analyzed.

**Table 2: Serve and click counts and percentages of Best Bets**

Best Bet	April 22, 2015 to May 23, 2015			May 24, 2015 to June 23, 2015		
	Serves	Clicks	Ratio	Serves	Clicks	Ratio
psycinfo	95	22	23.16%	116	23	19.83%
wos	112	5	4.46%	109	18	16.51%
pubmed	85	29	34.12%	85	37	43.53%
uptodate	42	17	40.48%	77	35	45.45%
worldcat	54	5	9.26%	66	16	24.24%
wallstreetjournal	44	5	11.36%	65	26	40.00%
factiva	29	20	68.97%	44	24	54.55%

jstor	70	12	17.14%	43	15	34.88%
chronicle	23	12	52.17%	39	6	15.38%
googlescholar	25	6	24.00%	35	8	22.86%
oed	48	23	47.92%	34	11	32.35%
mla	13	5	38.46%	31	30	96.77%
refworks	27	8	29.63%	30	18	60.00%
mathscinet	25	0	0.00%	27	1	3.70%
nytimes	28	4	14.29%	25	0	0.00%
science	16	0	0.00%	23	3	13.04%
ancestry	26	2	7.69%	23	2	8.70%
lynda	15	10	66.67%	22	14	63.64%
atlareldatabase	12	1	8.33%	22	9	40.91%
ebooks	18	5	27.78%	21	4	19.05%
overdrive	20	5	25.00%	17	6	35.29%
citing	17	0	0.00%	16	1	6.25%
dictnatbib	26	3	11.54%	16	0	0.00%
proquest	21	1	4.76%	15	3	20.00%
harvardbusinessreview	20	8	40.00%	14	7	50.00%
naxos	5	1	20.00%	14	5	35.71%
nature	13	0	0.00%	14	0	0.00%
onesource	7	1	14.29%	13	6	46.15%
endnote	19	2	10.53%	13	5	38.46%
economist	4	2	50.00%	13	5	38.46%



ezproxy	13	0	0.00%	13	0	0.00%
nejm	15	10	66.67%	12	6	50.00%
proquestdt	19	3	15.79%	12	6	50.00%
sciencedirect	12	3	25.00%	12	1	8.33%
lexisnexis	9	4	44.44%	11	4	36.36%
thomsonone	1	1	100.00%	11	2	18.18%
scifinder	10	1	10.00%	11	2	18.18%
edge	19	3	15.79%	10	0	0.00%
time	9	4	44.44%	9	3	33.33%
scopus	7	1	14.29%	9	2	22.22%
consumerreports	15	2	13.33%	9	1	11.11%
ieee	16	5	31.25%	8	0	0.00%
projectmuse	15	5	33.33%	7	2	28.57%
cinahl	6	3	50.00%	7	2	28.57%
artstor	16	5	31.25%	7	1	14.29%
chicagostyle	4	0	0.00%	6	1	16.67%
medline	4	1	25.00%	5	1	20.00%
zotero	2	0	0.00%	5	1	20.00%
gamble	4	0	0.00%	5	0	0.00%
globalhealth	0	0	0.00%	4	4	100.00%
rubenstein	4	1	25.00%	4	1	25.00%
plagiarism	7	0	0.00%	4	1	25.00%
lanneepilologique	11	0	0.00%	4	0	0.00%

econlit	4	0	0.00%	3	3	100.00%
behindtheveil	4	1	25.00%	3	1	33.33%
staffdirectory	10	1	10.00%	3	1	33.33%
embase	1	0	0.00%	3	1	33.33%
jobs	12	1	8.33%	3	0	0.00%
mintel	3	0	0.00%	3	0	0.00%
adaccess	22	5	22.73%	2	1	50.00%
hours	2	2	100.00%	2	0	0.00%
circulation	6	0	0.00%	2	0	0.00%
directions	1	0	0.00%	1	0	0.00%
sociologicalabstracts	2	0	0.00%	1	0	0.00%
ameconomicreview	3	0	0.00%	1	0	0.00%
oxfordmusic	7	2	28.57%	0	0	0.00%
jrnperssocpsyc	2	1	50.00%	0	0	0.00%
africanastudies	0	0	0.00%	0	0	0.00%
filmsondemand	2	0	0.00%	0	0	0.00%
middlepassage	0	0	0.00%	0	0	0.00%
contact	0	0	0.00%	0	0	0.00%
lockers	0	0	0.00%	0	0	0.00%
classicaldictionary	5	0	0.00%	0	0	0.00%
gedney	2	0	0.00%	0	0	0.00%
latinnewsstand	0	0	0.00%	0	0	0.00%