

Usability Test Report for EbscoHost Discovery Service (EDS)

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Executive summary

The purpose of this study is to assess how Ebsco Discovery Service (EDS) is fulfilling the promise to promote student independence in searching, finding, and accessing relevant library resources. Discovery systems in general are new in libraries. The user has access to a simple-looking search box (à la Google) which is supported by complex interface customization options and a large, diverse set of meta-data and full-text content obtained from diverse databases and library catalogs. EDS systems are very high in price, so the potential value in ease and simplicity of searching must be weighed against the cost.

Through observing user behavior and assessing user satisfaction, we seek to reveal difficulties with the EDS interface which could be improved with enhancements to the customizable areas of the interface. Participants were asked to give us their subjective satisfaction with content and results of searches, but we did not compare these results with an objective analysis of the content itself.

The Usability Test will consider the following issues related to the Meriam Library's implementation of EDS:

- *Do students use Discovery?*
- *Do they find what they need easily?*
- *What facets should be added or removed in the side bar?*
- *Are our limiters and refinement tools effective (fast full text, peer reviewed, etc.)*
- *Evaluate the design of interface, such as placement of customizable objects, help, colors, limiter options etc.*

Recommendations

The Discovery search concept has taken hold across the academic library world because it simulates the simple search box concept users are accustomed to from searching the web. This is especially important in an undergraduate library setting where it is important to overcome the inherent barriers of unfamiliarity with the scholarly research process.

This potential has been affirmed by this user study: The majority of the participants liked the concept and the "look-and-feel" of the interface. Most of our panel had not previously "discovered" Discovery, but once they were introduced to it, they mostly became familiar with it within the one-hour session. What may not be expressed in this printed report of findings, is that the students with previous search experience

expressed positive appreciation and even enthusiasm EDS as a better approach to searching in the library. (This qualitative aspect can be seen in the video recordings.)

From a usability perspective, it is a wise use of library resources and should be retained. The EDS platform is a good choice for us because it integrates seamlessly with other Ebsco databases.

The following section presents the recommendations developed by Wendy and Aaron based upon the study participants' response data and observations of the participants made during the usability sessions:

- The library needs a name and branding for EDS
- *Fast Full Text* should not prevent the inclusion of print or audiovisual results from the Meriam Library catalog when a search is conducted
 - There should be a Source Type limiter for videos. There is one that currently appears when *Fast Full Text* is unchecked. This limiter should appear constantly, even with *Fast Full Text* checked.
- EDS should not lose search terms & limiters the patron has set when re-sorting search results
- There is a need Instruction/Tutorial (preferably in video format) to
 - Describe limiter functions in the left-side navigation
 - Describe the *Fast Full Text* button and how unclicking it will increase results to articles in print and available through Interlibrary Services
 - Describe Advanced Search options
 - Describe how to add a line for additional search terms
 - Describe how to search for media and videos
 - Describe sorting by date/relevance
 - Describe sorting source type and content provider by number of hits vs. by name (alphabetically)
 - Describe where to get further help
- The help topics word cloud should be removed from the Ask A Librarian help page. If feasible, the 24/7 chat icon that displays when the Meriam Library Reference Desk is closed should be a different color than gray, to alleviate confusion regarding whether the Questionpoint chat service is available on a 24-hour basis.

Questionnaire outline

The questionnaire consisted of sixteen questions designed to test the usability and “friendliness” of EDS as it appeared on the ReSEARCH Station in March 2013. Eight questions measured EDS features, functions and limiters; five measured students' affective reactions to EDS in comparison to other search options; and three were demographic questions.

Questionnaire summary

Part I, three questions:

- *Practice Task to acquaint participants with EDS*
- *Searching with non-EDS tools on the ReSEARCH Station*

Part II, five questions

- *Using EDS to find books, articles, videos*
- *Using limiters for peer-reviewed articles and date ranges*
- *Testing ability to locate Help easily*

Part III, five questions

- *Recording the participants affective reactions to EDS, as well as his/her preference for EDS versus other Web-based search tools*

Part IV, three questions

- *Record demographic information about each participant*

Who we tested

There were originally six volunteers but only five (5) participated; one person did not appear for the appointment. The participants volunteered for the study based on a call on Student Announcements and the incentive of a \$25 Wildcat Gift Card. An attempt was made to select broadly across class levels, majors, and undergraduate versus graduate status.

Class Levels

Participant A	First year
Participant B	Graduate
Participant C	Graduate
Participant D (no show)	First year
Participant E	First year
Participant F	Senior
TOTAL (participants)	5

Gender

Women	3
Men	2
TOTAL (participants)	5

Library Computer Experience

No experience	1
Experienced but not adept	3
Skilled / very experienced	1
TOTAL (participants)	5

What participants did

Sessions were conducted in the LER and in Room 457 and lasted about 45 minutes. There were some greetings and personal interaction about the gift cards, but each participant received the same verbal instructions. One librarian read the instructions to the participant; the other observed and took notes. Each participant was encouraged to think out loud and speak into the computer microphone, thereby articulating many questions which the librarians answered to a minimal extent.

Video recordings of each session were collected of each participant's session. Rough notes were transcribed and compiled; tapes were reviewed twice.

Detailed usability findings

This study was designed to assess the usability of the basic navigation of EDS for typical searches. It was not intended to analyze relevance of content, search result precision, database response time, or display of database records.

Section 1 of these findings presents the verbatim text of the first eight survey questions with their answer choices. Three additional statements explain each question’s general purpose, targeted user behavior and satisfaction, and feature or functionality the question is designed to test. A three-column table provides a comparison of individual responses in conjunction with notes and observations made by Wendy and Aaron during the test.

Section II presents the text of the next five questions, along with summary tables of user responses to each question. Section III presents a table of general observations and comments on each of the five participants’ usability sessions, not associated with any specific question.

PLEASE NOTE: Participant D did not appear for the appointment and so no data is provided.

Section I – Summary of User Behavior

Question #1:

Use the search box to search a topic relating to your major / discipline or another topic of interest to you.

If you were writing a paper on this topic how satisfied would you be with these results?

Scale: Very satisfied; Satisfied; Somewhat satisfied; Not satisfied

Purpose: To get comfortable with usability testing software; minimize learning curve for first time users of EDS.

User behavior & satisfaction tested: None.

Feature/functionality tested: Finding EDS from the Library home page.

Participant:	Response:	Notes and observations:
A	Somewhat satisfied	Subject's search: "humanities" as a major. She noted the large number of results from her search, so she added another keyword, "education." She did not use the limiters on left. She found something that satisfied her overall, with the caveat that she wasn't getting into the full research process.
B	Very satisfied	Subject's search: interoffice romances. He was frustrated that one must log into an Ebsco product before doing anything in order to save articles to a folder. He was expecting Academic Search. He had trouble getting back to the Research Station from an article's PDF display, but used (and seemed to like) the library home link in the main Ebsco display.
C	Satisfied	Subject's search: "social axioms." He was generally satisfied; noted that his terms meant a lot of math results.

E	Very satisfied	Subject's search: "computer engineering." She indicated verbally that she did not understand results; said there were "a lot of results."
F	Satisfied	Subject's search: "human trafficking", narrowed with "brazil." She was satisfied with the results.

Question #2:

Locate the journal *Sports Medicine*.

Is this journal available in online full-text?

Scale: Yes or No

What are the years of coverage in print?

Scale: From: To:

Purpose: Can students locate a journal by title from the ReSEARCH Station? This is a search that should not be done from EDS.

User behavior & satisfaction tested: Do students notice the correct link or do they choose EDS search box? Do they understand print versus online holdings?

Feature/functionality tested: Specific Journal Title search; date range determination of print holdings; noticing online full-text.

Important note about this question: This journal may have been in the process of being removed from Academic Search's collection of journals during the week our usability tests were conducted. In completing this task, Participant B saw electronic coverage of the journal listed in Academic Search from 1984 to 2004. Clicking the link from the catalog record to Academic Search resulted in a listing of the journal's articles. From here, clicking on a link for an individual article led to a message generated by Academic Search saying the article could not be found. Three days later, Participant F saw electronic coverage of the journal listed in Academic Search from 1998-2012 (she wrote 2013 on her copy of the question). Clicking the link from the catalog record to Academic Search resulted in a listing of the journal's articles, each with a SFX Find it button. Clicking this button led to a dialogue box telling her she could request the article in question from Interlibrary Services. At present, there is no listing of electronic coverage of any sort in the catalog record for this journal title.

Participant:	Response:	Notes and observations:
A	Online full text? No Coverage in print? February 1984 to 2004	After trying EDS without success, the subject found the specific journal title link on the ReSEARCH Station with a prompt from Wendy. She experienced more difficulty finding coverage dates and online full text in the library catalog record.
B	Online full text? No Coverage in print? 1984 to 2004	Subject confirmed that a citation he found in EDS was not at the article level. He returned to the ReSEARCH Station and went right to specific journal title link. He was confused by the connected continuation titles on an intermediary screen – he said the journal titles "looked like books," until he saw the periodicals location.
C	Online full text? No	Subject used the Specific Journal Title link from the ReSEARCH Station, but didn't open the record to see whether it is online; instead

	Coverage in print? 1984 to present	he made an assumption that it was all print. He was also confused by the connected titles intermediary screen.
E	Online full text? Yes Coverage in print? No answer	Subject searched in EDS for the journal title. Added the word "journal". After she scrolled through many screens trying to find the journal, Aaron directed her to return to the ReSEARCH Station, but she still ended up in EDS (possibly due to the influence of Question #1, though that is unclear).
F	Online full text? No Coverage in print? 1998 to 2013	Subject found the catalog record for Sports Medicine, which listed coverage as being in Academic Search from 1998 to 2012. Clicking the Academic Search link did indeed lead to an expandable date tree in the Ebsco interface, and the subject could even get as far as the database records for individual articles. However, each article record offered the Find It button as opposed to PDFs of the articles. Clicking Find it offered only Interlibrary Services as an access option. The subject gave up in frustration in finding the journal in electronic form as a result. She also failed to notice the Search For A Specific Journal Title link, and instead tried to search the Health Sciences Xerxes bar for the journal title. This strategy led her to give up on figuring out if there were holdings in print.

Question #3:

Without using the search box, find two (2) books and two (2) peer reviewed articles from the last 5 years on rheumatoid arthritis.

If you were writing a paper on this topic how satisfied would you be with these results
Scale: Very satisfied; Satisfied; Somewhat satisfied; Not satisfied

Purpose: How users complete a typical, broad, multi-layered task with and without EDS.

User behavior & satisfaction tested: What barriers exist and confusions take place?

Feature/functionality tested: Comparison with same search done from the ReSEARCH Station without using EDS. Which is easier & faster?

Participant:	Response:	Notes and observations:
A	Satisfied	Subject found the sort-by-date feature easily and located chapters in catalog; for articles, after a prompt to exit the catalog, she went to Articles & Databases by Subject on the ReSEARCH Station, selected nursing, and used the Xerxes meta search; noted time passing and Number of results while fetching.
B	Somewhat satisfied	Subject noted that the answer choices for this question are double-barreled; our survey form needed a line each for books and articles. He was confused as to whether a book chapter counted as a book (our question design did not count it as such). He was very satisfied with Academic Search for answering the question, but not with our book collection.
C	Satisfied	Subject knew the Books & More (Library Catalog) link on the ReSEARCH Station (as opposed to the Books & Media tab at the top of

		the ReSEARCH Station). After searching he sorted by date and opened the record for a 2007 book. He felt there were not enough books, and noted that the most recent was "only" 2011. He returned to the ReSEARCH Station for peer-reviewed articles. He chose Articles & Databases by Subject, and, because he was looking for "medical stuff," he chose "Health." He used the Xerxes meta-search on Health subject page, clicking the date limiter and looking at 2013.
E	Not satisfied	Subject wrote "confusing" on her answer sheet in response to this question. She took a long time to find Library catalog. She simply did not see the words "books" on the ReSEARCH Station either in the EDS search bar or under the Search For menu. Repeatedly scrolled down to the lower portion of the screen. She Used Articles & Databases by Subject to look for Books (it is not clear she understood the concept of what an article database is, as she had difficulty separating book-searching sources out from other kinds of sources). She got hung here several times not seeing a place to search Articles & Databases by Subject. She chose Nursing, but abandoned it as an option because she really did not know what she was looking for. Even in the catalog, she persisted in looking at right-hand facets; reading too deeply and overcomplicating the search process. She scrolled to bottom of the ReSEARCH Station and chose the Guide for Scholarly Journals. While she did not see a place to search it, she returned to it several times expecting it to give her a place to find Articles. She did not realize that articles and journals are related and they are related to databases (an issue also made clear in other testing segments).
F	Very Satisfied	For articles, the subject went to Articles & Databases by Subject, selected Health Sciences, and searched the Xerxes Multi-search; for books, she returned to the Books & More (Library Catalog) link ReSEARCH Station (not the Books & Media tab), and found two.

Question #4:

This time, *use* the search box to find two (2) books and two (2) peer reviewed articles from the last 5 years on rheumatoid arthritis.

If you were writing a paper on this topic how satisfied would you be with these results
Scale: Very satisfied; Satisfied; Somewhat satisfied; Not satisfied

Purpose: How users complete a typical, broad, multi-layered task with and without EDS.

User behavior & satisfaction tested: What barriers exist and confusions take place?

Feature/functionality tested: Comparison with same search done from the ReSEARCH Station without using EDS. Which is easier & faster?

Participant:	Response:	Notes and observations:
A	Very Satisfied	Following her initial search, the subject checked the Books & More (Library Catalog) checkbox in EDS in order to find books. However, she had Fast Full Text and Books both selected. In order to find books, she needed to unclick Fast Full Text (and did with prompting).

		<p>She did not like the ability to select more than one option via checkboxes, and would have instead preferred radio buttons. She said the unchecking and checking process was "slightly annoying." She found articles in EDS without difficulty using the default search settings and the Scholarly (Peer-Reviewed) checkbox.</p>
B	Somewhat satisfied	<p>Subject encountered the same full-text/catalog issue as Participant A: In trying to get books, he checked the Books source type checkbox (as opposed to the Books & More (Library Catalog) checkbox and got chapters in ebooks -- in his words, "None of these chapters are relevant... there's no books about it [rheumatoid arthritis], and that's what I'm supposed to find: a book about it." He was confused about what to do from there and tried unhelpful strategies for accessing book records. He observed that system should not eliminate the user's sort and limiters when further refinement is made.</p>
C	Very Satisfied	<p>Subject was very satisfied with his results using EDS as opposed to not using EDS to complete Question #3 because "there was more to work with." His search on "rheumatoid arthritis" offered many articles that satisfied him. After searching for articles, he went to left hand side navigation bar, checked the Books source type checkbox (as opposed to the Books & More (Library Catalog) checkbox and updated his search. Then he checked the Scholarly (Peer-Reviewed) checkbox and narrowed by date by typing 2007-2013; he did not use the date slider. These additional limiters updated his search to find scholarly materials published between 2007 and 2013, but eliminated the Books source type filter in the process. The subject did not notice the loss of this limiter.</p> <p>He was confused because he found ebook chapters instead of books (the Fast Full Text button was checked). Due to this ambiguity, he did not complete the book portion of the task (which asked a person to find books as opposed to book chapters), but it was not clear if he knew he was not completing it. The subject's failure to complete this portion of the task highlights the difficulty of recognizing the Fast Full Text checkbox must be unchecked in order to find books through EDS.</p>
E	Somewhat satisfied	<p>Subject had better success than she did with Question #3, but was still very confused. Answered "somewhat satisfied" but never completed the books portion of the task. She had to be prompted to sort for articles and for books as separate tasks. She did not know what she was looking at or for (again, it is not clear she understood the concept of what an article database is). She clicked randomly --- advanced search, at the bottom of the screen. Returned at least two times to the ReSEARCH Station home page to try to start over. She even went to Guide for Scholarly Journals again. She eventually found regular catalog for books but did not recognize it.</p>
F	Very Satisfied	<p>Subject studied the screen, reading through article records to see if articles were described as peer-reviewed. She did not know where to find this information. She used Advanced Search for books, and then noticed Peer Reviewed limiter. With this in mind she started over and was then able to use all limiting and sorting functions to find two books. She unchecked Fast Full Text in order to find these books. She did not attempt to find two articles -- the recording of her activity makes it clear that she forgot about this portion of the task.</p>

Question #5:

Using the search box, find a video related to early childhood cognitive development.

Are you satisfied with the results?

Scale: Yes or No

Purpose: 1) Determine whether users can distinguish videos from other catalog records for books, gov docs, etc.; 2) Question provides a *specific keyword phrase*

User behavior & satisfaction tested: Is finding non-print an easy or difficult task? Can participants complete it? Is unclicking “Fast Full- Text” too difficult?

Feature/functionality tested: Can users figure out that they need to unclick Fast Full Text to get to catalog records? Are catalog records labeled clearly?

Participant:	Response:	Notes and observations:
A	Yes	Subject knew about the Books & Media tab on the ReSEARCH Station, went directly to it.
B	Yes	Subject looked for "video" as an option in the EDS Advanced screen – this option did not exist, however. With prompting, he returned to the ReSEARCH Station. He did find a video easily after doing this, but his initial attempt to find a video in EDS demonstrates the need for a video format filter.
C	Yes	Subject found ebooks, not videos, in EDS. He selected "electronic resources" as his source type, but didn't like the results; was confused on how to limit by media format. (As with Participant B, his attempt to find a video demonstrates the need for a video format filter.) He tried EDS's Advanced search which didn't work; eventually went to Books & Media tab at the top of the ReSEARCH Station.
E	Yes	After initial misguided clicking, subject completed this task quickly. She understood videos to mean "Media," and used the Books & Media tab of the EDS search box. She typed "childhood cognitive development" and sorted for videos easily.
F	No	Subject typed the exact phrase in EDS, was dissatisfied with her search results, essentially due to the lack of a video format filter. She went to the Source Type box under the Search Everything tab on the ReSEARCH Station (not the Books & Media tab), didn't find anything, and abandoned her search.

Question #6:

1. Search on speech pathology and find a way to limit your results to audiology. Then, limit your search results to peer-reviewed sources. Are you satisfied with the results?
Scale: Yes or No

2. You need more recent sources. Please limit these search results to the last 5 years, then select the most recent source available. Are you satisfied with the results?

Scale: Yes or No

Purpose: 1) Which of several ways will students try to refine search & use limiters; 2) Clarity of Peer-reviewed limiter; 3) Question provides a general topic

User behavior & satisfaction tested: Satisfaction with limiting and refining results; How long does it take?; Is there frustration?

Feature/functionality tested: How obvious are the various options for limiting and refining; How evident is the scholarly/peer-reviewed article limiter?

Participant:	Response:	Notes and observations:
A	Satisfaction with limiting to peer-reviewed sources: Yes Satisfaction with limiting to recent sources: Yes	Using the EDS Advanced Search, the subject searched "speech pathology," and used a Boolean AND to add the second search term, "audiology." She sorted by date and was happy with her results. She did not use the subject headings on the left side of the EDS interface.
B	Satisfaction with limiting to peer-reviewed sources: Yes Satisfaction with limiting to recent sources: Yes	Using the EDS Advanced Search, the subject searched "speech pathology," and used a Boolean AND to add the second search term, "audiology." He did not use the subject headings on the left side of the EDS interface, but was happy with his results as they were.
C	Satisfaction with limiting to peer-reviewed sources: Yes Satisfaction with limiting to recent sources: Yes	Using the EDS Advanced Search, the subject searched "speech pathology," and used a Boolean AND to add the second search term, "audiology." He did not use the subject headings on the left side of the EDS interface, but was happy with his results as they were.
E	Satisfaction with limiting to peer-reviewed sources: Yes Satisfaction with limiting to recent sources: Yes	Subject searched speech pathology. The only way she tried to limit was subject limiters (looking at the lower screen again). She never tried to add audiology as a keyword, though she was successful in limiting the search via the audiology limiter. She wanted to see the list of subject limiters alphabetized. She did not use the date slider bar to narrow her search by year, but instead went to the advanced search options. In so doing, she was able to get peer-reviewed articles on speech language pathology from the past five years, but she lost the audiology limiter in the process.
F	Satisfaction with limiting to	Using the EDS Advanced Search, the subject searched "speech pathology," and used a Boolean AND to add the second search term,

	peer-reviewed sources: Yes Satisfaction with limiting to recent sources: Yes	“audiology.” She did not use the subject headings on the left side of the EDS interface, but did use the Scholarly (peer-reviewed) limiter. With these parameters, she completed the task and was satisfied.
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Question #7:

Find a way to ask to ask a Meriam Library librarian for help using the search box functions and navigation.

Are you satisfied with the Help page you are viewing?

Scale: Yes or No

Purpose: Can students get help when needed?

User behavior & satisfaction tested: How evident is the Help function? Can students find Ask a librarian?

Feature/functionality tested: Do students click on the Ebsco HELP option instead of Ask a Librarian due to close proximity?

Participant:	Response:	Notes and observations:
A	No	Subject initially used Ebsco help on upper far right. After that, went to LibAnswers (the technical name for the Ask A Librarian service), but was confused by the help topics word cloud. She found the grayed-out button for 24/7 Questionpoint confusing -- the graying out implies that it is not active.
B	Yes	Subject found Ask a Librarian. He did not like the "jumbled big and small words" look of the page. He mentioned that it needs a topical arrangement. He also found the gray 24/7 Questionpoint button "offputting;" didn't realize it is our Reference Desk-closed option.
C	Yes	Subject's returned to the ReSEARCH Station and used the Ask a Librarian button. From here he used the chat service.
E	Yes	Subject returned to the ReSEARCH Station and found the Ask a Librarian button and chat service easily. She typed "how do I use the search box," but then scrolled and scrolled through the existing answers.
F	Yes	Subject's was on the ReSEARCH Station, so she used the ASK icon. She did not test the EDS path to the Ask A Librarian page as a result, nor did she test any of the page's functionality when she got there (possibly because she was being surveyed, and didn't actually have a question with which she needed help?). Her habit is to "start over" rather than click "new search" from within EDS (she may have been following the directions Aaron read at the beginning of the session, which were to begin from the Research Station for each question).

Question #8:

Identify at least five (5) articles on women’s professional baseball in the nineteen forties. These may be available full-text, in print, or only from Interlibrary Services.

How many articles do you find in magazines and journals?

Scale: Number of articles: ____

Purpose: Do students know how to go beyond the results found with the fast full-text button option?

User behavior & satisfaction tested: How long does it take and is there in confusion about getting to more info if not enough is retrieved at first?

Feature/functionality tested: Whether having Fast Full-text as the default search setting trips students up if they need to look beyond the articles immediately available.

Participant:	Response:	Notes and observations:
A	Five	Subject went to the EDS Search Everything tab and typed, “women’s professional baseball forties.” With Fast Full Text checked, she got three results. She unchecked the Fast Full Text checkbox and checked the Scholarly (Peer-Reviewed) checkbox, yielding four results. She eliminated “forties” from her search, yielding 155 results, from which she selected one to go with the previous four to complete her five articles. She did not verify that her fifth article was different from the four she found through her second search (though it turned out to indeed be unique, so her assumption that she found five articles held true).
B	Five	Subject’s went straight to EDS Advanced Search, and used four search bars connected with Boolean ANDs. He typed “women*”, “profession*”, “baseball”, and “194*” into each respective bar, unchecked Fast Full Text, and found 37 search results. From here he found five titles without further adjusting any limiters. Two of the titles he found were books not in the Meriam Library collection. At least two pairs of articles were identical – the same article taken from two different databases and not unduplicated (a process EDS is supposed to perform automatically). The subject was careful not to double-count duplicate articles in the titles he examined to complete the task.
C	Five	Using the EDS Search Everything bar, the subject typed “women’s professional baseball 1940s.” He did not uncheck Fast Full Text, but still retrieved eight articles (two of which did not appear to be available in full text, despite having the checkbox checked). Eliminating the “s” from 1940s added two results for a total of ten. The subject never actually counted or specified which articles he examined in completing the task, but noted that there were more than five relevant articles, so he was satisfied with his results.
E	Unable to find	Subject used advanced option because she “wanted a specific time.” She mistakenly interpreted question as meaning articles written during that time period; Aaron helped her understand that the time period concerned the article’s subject matter; publication dates could

		<p>be later. She started over several times. She said she found one article because she searched date range 2008-2013. Initially could not figure out how to limit her search, but then added "1940s" to her keyword search. She did not understand that articles are the same as Journals and Magazines, and ignored these results entirely in her count & perception. She kept looking at her results over & over, trying to interpret them. But she did not re-read question on page to see what was really needed.</p>
F	Four	<p>Using the EDS Search Everything bar, the subject typed "womens professional baseball 1940s." Her initial search retrieved only four articles. Wendy and Aaron asked whether she could find five, and pointed out that articles could be non-full-text. She could not figure out that she could unclick the Fast Full Text checkbox, despite having unclicked it intuitively on question four. She tried to broaden search by clicking the Scholarly (Peer-Reviewed) checkbox, which narrowed the results down to nothing. She abandoned her search.</p>

Section II. Summary of User Satisfaction and Affective Responses

Question #9: How frequently do you use the following for your academic research or coursework?

Scale: Number of students who responded to each answer category for each search tool

	Daily or twice-weekly	Once a week	Monthly	A few times per semester	Never	Not sure
Google	5					
Library catalog		1		3		1
Ebsco Library databases (Academic Search, Business Source, etc)	2		1		1	1
Non-Ebsco database (Literature Online, JSTOR, etc.)		1	2		2	
Search box on ReSEARCH Station (EDS / Discovery)			1	1	3	

Question #10: Please rate your experiences / thoughts about using the Search box (Discovery) today:

Scale: Number of students who responded to each answer category for each "I" statement

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Not sure
I was able to easily find relevant results	1	2	2			
I like the search box interface and its "look and feel"		5				
It would help me to have instruction for using the search box		2		3		
I was confused about how to navigate		3	1	1		
I was confused about how to refine my searches	1	2	2			
I was confused interpreting the results of my searches		1	2	1	1	

Question #11: How likely are you to use the search box as your "first stop" when doing library research?

	Participant A	Participant B	Participant C	Participant E	Participant F
Very likely	X			X	X
Likely					
Neutral					
Unlikely		X	X		
Very unlikely					

Question #12: Would the search box be a useful tool for your *current* coursework and research assignments?

	Participant A	Participant B	Participant C	Participant E	Participant F
Very likely			X	X	X
Likely	X				
Neutral					
Unlikely		X			
Very unlikely					

Question #13: How likely are you to recommend the search box to a friend for their research?

	Participant A	Participant B	Participant C	Participant E	Participant F
Very likely					X
Likely			X	X	
Neutral	X				
Unlikely					
Very unlikely		X			

Section III. General observations not associated with any specific question:

Participant:	General observations:
A	Subject didn't know how to look for help for EDS searching due to lack of a name.
B	Subject's mentioned that the EDS service needs a name and branding. He thought of a sailor peering over his hand to stand for "Discovery." He also wanted more organization in the EDS display -- not "a big glob" of data. He thought it would be better for undergrads if the display were clearer. The full-text/catalog checkbox issue was difficult for him. His experiences indicate a need for a sort function for video media from within EDS.
C	Subject experienced difficulty with the full-text/catalog issue. His experiences may indicate a need for disambiguation between books and book chapters in EDS's document format icon. His experiences further beg the question of whether the Xerxes meta search is now redundant, given the presence of EDS, subject-specific EDS search bars, and subject-specific databases. His experiences with question #7 in particular indicate a need for a LibAnswer

	about using the EDS search box.
E	Subject overcomplicated searching – she looked at the lower portion of the screen or opened random links or advanced search options for even simplest of tasks. She had no familiarity with the ReSEARCH Station. She did not read tasks carefully and guessed at answers. When modifying a search, she lost a subject keyword parameter she had set (and did not realize she had lost it). Her search was suddenly and involuntarily broadened past her topic as a result.
F	Subject’s experiences indicate a need for a sort function for video media from within EDS. The full-text/catalog checkbox issue was a factor in question eight despite not being a factor in question four.

Appendices

Appendix I:

Text of the statement read to each participant at the beginning of his/her usability session

Hello and welcome,

Thank you for coming. I’m Aaron Bowen, and this is Wendy Diamond. We are two of your reference librarians at CSU, Chico.

We’ve brought you here to participate in a usability study examining the Ebsco Discovery search bar, which is the “Search Everything” bar you see at the top of the Meriam Library ReSEARCH Station. What we’re trying to do is to understand broadly how our patrons evaluate and use our resources, specifically the Search Everything bar.

To be clear, we are evaluating our resources, not your research skills. You can’t do anything wrong in searching them. There is no such thing as making a mistake when proceeding through the study’s tasks. In other words, be yourself. We’re not looking for anything fancy – just search according to your comfort level.

We’ll test the usability of our resources by asking you to complete various tasks, presented in these sheets of paper [see Appendix II]. Part one asks you to use the whole ReSEARCH Station, including but not limited to the Search Everything box, to complete three tasks. Part two asks you to do the same thing using the Search Everything box specifically, and presents you with five tasks. For each task in these sections, we will begin at the ReSEARCH Station – part two just asks you to ignore all the other content on the page besides the Search Everything box.

Part three asks you to describe how satisfied you are with these tools, and with the results they retrieved for you. Part four asks a few demographic questions. No identifying information of any sort is collected, and in fact you already provided us with the information we are collecting when you contacted us to participate in the study.

If you’ve spent a few minutes on one of the tasks and it’s just not working out, or you’re just not finding results that satisfy you, note that, and then move on to the next task.

We will use a piece of software to record your typing and mouse clicks, and we will take notes on your activity as well. As you proceed through the tasks, we ask that you think out loud – the computer’s microphone will record your voice.

Just tell us generally what you see on the page, and what you think the different elements of the page should do. When you click on something, tell us why you think clicking on it helps complete the task you’re working on. I may ask questions as you go just to find out what you’re thinking as you navigate the tools, though I’ll keep them brief and non-intrusive.

If you would, I’m going to ask that you sign this informed consent form [see Appendix III]. You’re welcome to read through it if you like. It says that the two of us will be observing you and taking notes, we will be electronically recording your computer use, and we will protect the confidentiality of your activity and any information you provide for us. The two of us can see the recordings of your usability session, but no one else can. Your participation is voluntary, and you can withdraw from the session at any time. Following the session, I will make a copy of the informed consent form and give it to you, along with the \$25.00 gift card to the Wildcat Book Store.

Do you have any questions before we begin?

Appendix II: EDS (EbscoHost Discovery Search) Usability Questionnaire

Part I. Navigating to EDS from Research Station - practice and pre-test

1. Use the search box to search a topic relating to your major / discipline or another topic of interest to you.

If you were writing a paper on this topic how satisfied would you be with these results

VERY SATISFIED	SATISFIED	SOMEWHAT SATISFIED	NOT SATISFIED
----------------	-----------	--------------------	---------------

2. Locate the journal *Sports Medicine*.

Is this journal available in online full-text?

YES	NO
-----	----

What are the years of coverage in print?

From:	To:
-------	-----

3. *Without* using the search box, find two (2) books and two (2) peer reviewed articles from the last 5 years on rheumatoid arthritis.

If you were writing a paper on this topic how satisfied would you be with these results

VERY SATISFIED	SATISFIED	SOMEWHAT SATISFIED	NOT SATISFIED
----------------	-----------	--------------------	---------------

Part II. Usability of EDS functions and features

4. This time, *use* the search box to find two (2) books and two (2) peer reviewed articles from the last 5 years on rheumatoid arthritis.

If you were writing a paper on this topic how satisfied would you be with these results

VERY SATISFIED	SATISFIED	SOMEWHAT SATISFIED	NOT SATISFIED
----------------	-----------	--------------------	---------------

5. Using the search box, find a video related to early childhood cognitive development.

Are you satisfied with the results?

YES	NO
-----	----

6.

- a. Search on speech pathology and find a way to limit your results to audiology. Then, limit your search results to peer-reviewed sources.

Are you satisfied with the results?

YES	NO
-----	----

- b. You need more recent sources. Please limit these search results to the last 5 years, then select the most recent source available.

Are you satisfied with the results?

YES	NO
-----	----

7. Find a way to ask a Meriam Library librarian for help using the search box functions and navigation.

Are you satisfied with the Help page you are viewing?

YES	NO
-----	----

8. Identify at least five (5) articles on women’s professional baseball in the nineteen forties. These may be available full-text, in print, or only from Interlibrary Services.

How many articles do you find in magazines and journals?

NUMBER of articles:	<input style="width: 300px; height: 20px;" type="text"/>
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Part III. User satisfaction

9. How frequently do you use the following for your academic research or coursework?

	Daily or twice-weekly	Once a week	Monthly	A few times per semester	Never	Not sure
Google						
Library catalog						
Ebsco Library databases (Academic Search, Business Source, etc)						
Non-Ebsco database (Literature Online, JSTOR, etc.)						
Search box on ReSEARCH Station (EDS / Discovery)						

10. Please rate your experiences/ thoughts about using the Search box (Discovery) today:

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Not sure
I was able to easily find relevant results						
I like the search box interface and its "look and feel"						
It would help me to have instruction for using the search box						
I was confused about how to navigate						

I was confused about how to refine my searches						
I was confused interpreting the results of my searches						

11. How likely are you to use the search box as your "first stop" when doing library research?

- Very likely
- Likely
- Neutral
- Unlikely
- Very unlikely

12. Would the search box be a useful tool for your *current* coursework and research assignments?

- Very likely
- Likely
- Neutral
- Unlikely
- Very unlikely

13. How likely are you to recommend the search box to a friend for their research?

- Very likely
- Likely
- Neutral
- Unlikely
- Very unlikely

Part IV. Demographics

14. What is your class level?

- first year
- sophomore
- junior
- senior
- graduate

15. What is your Department Major (e.g., PSYC) or are you Undeclared?

Major _____

Undeclared _____

16. Gender

- Male
- Female

Appendix III: Informed consent form

California State University, Chico

Meriam Library
400 West First St.
Chico, CA 95929-0295

INFORMED CONSENT FOR NON-MEDICAL RESEARCH

Ebscohost Discovery System (EDS) Usability Study

You are invited to participate in a research study conducted by Wendy Diamond, MLIS, and Aaron Bowen, MLIS, at California State University, Chico. Your participation is voluntary. You should read the information below, and ask questions about anything you do not understand, before deciding whether to participate. Please take as much time as you need to read the consent

form. You may also decide to discuss participation with your family or friends. If you decide to participate, you will be asked to sign this form. You will be given a copy of this form.

PURPOSE OF THE STUDY

This study is designed to provide a systematic and direct study of users to assess the effectiveness of 1) the Ebsco Discovery Service (EDS) concept as a whole and whether the library should continue to subscribe, and 2) assess the Meriam Library's customized search interface and whether our choices have resulted in making search easy and accessible. We will use three dimensions of measurement to evaluate our iteration of EDS: 1) Usability; 2) User Behavior; 3) User satisfaction.

STUDY PROCEDURES

If you volunteer to participate in this study, you will be asked to complete a 4-part questionnaire administered in one 50-minute session; the post-test will ask for the following demographic information: Class Level (first year, sophomore, junior, senior, grad student); Major Department or Undeclared; Gender. The first two parts of the Questionnaire will ask you to navigate to library research tools and use their features. The questions present hypothetical research needs. You will use library resources to answer them.

During the test, you will be observed by up to four library staff members, who will make handwritten notes. Software will record your keystrokes and the screen, but you will not be recorded with audiovisual equipment. Being observed and having your keystrokes logged are mandatory for participating in this session.

POTENTIAL RISKS AND DISCOMFORTS

There is no anticipated risk to you for completing this survey.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

The benefit to you for completing this survey is a \$25.00 Wildcat Bookstore Gift Card. The benefit to society, particularly students at CSU, Chico, is that this research may yield insights into the Meriam Library's customized search interface, and whether our choices in presenting the interface are intuitive to students.

PAYMENT/COMPENSATION FOR PARTICIPATION

By completing this survey, you will receive a \$25.00 Wildcat Bookstore Gift Card, to be given to you at the end of the research session.

CONFIDENTIALITY

The CSU, Chico Institutional Review Board has reviewed this research study to protect your rights and welfare as a research subject.

Personal contact information:

Your personal contact information obtained in connection with this study has remained confidential and will be discarded following this session. When the results of the research are published or discussed in conferences, no identifiable information will be used.

Research data:

The data you provide during this session will be stored on a secure server or hard drive. It will be password protected and kept for a minimum of three years following the completion of this research project. Research team members Wendy Diamond and Aaron Bowen may access the data.

PARTICIPATION AND WITHDRAWAL

Your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

INVESTIGATOR'S CONTACT INFORMATION

If you have any questions or concerns about the research, please feel free to contact Wendy Diamond or Aaron Bowen at the following address:

Meriam Library
400 West First St.
Chico, CA 95929-0295

Or at

wdiamond@csuchico.edu
asbowen@csuchico.edu

RIGHTS OF RESEARCH PARTICIPANT – IRB CONTACT INFORMATION

If you have questions, concerns, or complaints about your rights as a research participant you may contact the Institutional Review Board directly at the information provided below. If you have questions about the research and are unable to contact the research team, or if you want to talk to someone independent of the research team, please contact the Office of Research and Sponsored Programs

CSU, Chico – Bldg 25
Chico, CA 95929
Tel: 530-898-5700
Fax: 530-898-6804

SIGNATURE OF RESEARCH PARTICIPANT

I have read the information provided above. I have been given a chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Name of Participant

Signature of Participant

Date

SIGNATURE OF INVESTIGATOR

I have explained the research to the participant and answered all of his/her questions. I believe that he/she understands the information described in this document and freely consents to participate.

Name of Person Obtaining Consent

Signature of Person Obtaining Consent

Date