Search UX Report

Research and Report Prepared by
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Summary

The aim of this User Experience research study was to determine how we could improve our Library site by refining the functionality and design of the homepage search box and the library search engine results page (henceforth "Search UX"). The study was motivated by research questions around two main elements of the Library Search UX:

1. How can we improve the Library *homepage search box*?
2. How can we improve the Primo *search engine results page*?

To assess and improve Library Search UX and to generate responses to the above two question, participants were asked to complete a series of five tasks completed on five different library websites. Websites were selected so as to introduce a variety of search features and functions to the study (see "Websites in the Study" section below for more detail). Following task completion, participants completed the SUPR-Q Survey, which measures website appearance, easy of use, loyalty, and credibility.

The sessions were conducted by the User Experience & Assessment Library and the Electronic Resources & Discovery Services Librarian in the Dean's Conference Room utilizing a talk-aloud and observational process. Participants included 3 undergraduate students, 3 graduate students, and 2 faculty at Montana State University.

This research report contains a summary of observations, a description of Search UX findings and recommendations, and survey results and analysis. The findings and recommendations focus on the ease of use of the Library Search experience, with suggestions for specific redesign of components.

Strategic Planning and Analysis

This study supports MSU Library Strategic Plan Objective 1.1, which states that users will "interact with a welcoming and responsive physical and digital library environment." Recommendations from this study will help produce a more welcoming and responsive digital library environment for our users. Specifically, the SUPR-Q scale[1] is a measure that will support this objective and track progress towards improvement.

Major Findings and Recommendations

Findings
- Participants scored the MSU Library website highest in the study. Notably, participants gave the Library site an average Net Promoter Score of 8.8. This is an improvement over the NPS of 4.75 from the previous UX study conducted in January 2017, when the previous Primo search interface was in place.
- Faculty often bypassed homepage search boxes for targeted destinations based on discipline. These destinations were primarily known databases and journal titles.
- Graduate students and faculty expressed distrust in homepage search boxes, especially when the search box was a simple, Google-style presentation.
- Undergraduates more readily trusted and interacted with the homepage search boxes, but became somewhat confused with the amount of options presented on the search results pages.
- All three user groups struggled to locate library account login and information.
- The Bento Box[2] search result pages were not major factors influencing Search UX; users experienced success and satisfaction with the Primo search result pages.
- All three user groups noted confusion around specific library jargon used to describe specific searches, such as eJournal or online article.

Recommendations
- MSU Library Homepage Search Box — strategy for improvement: include additional information and functionality to increase user trust and ability
  - **Add new options to the homepage search box that allow users to more easily search for journals and databases**. This functionality could ~~appear as a drop-down menu, a tabbed interface, or~~ additional buttons in the search box area.
 - **Add peer review filter** on homepage search

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[1] http://www.suprq.com/

[2] Tay, A., & Yikang, F. (2015). Implementing a Bento-Style Search in LibGuides v2. *The Code4Lib Journal*, *29*. Retrieved from https://journal.code4lib.org/articles/10709.

- ○ **Add Library Accounts login link to the homepage**
  - ○ **Add a CatSearch Infopage with a link from the homepage**: Add better description or information button that describes briefly what is in CatSearch
- Search Engine Results Page
  - ○ No changes are recommended.

Key Design References
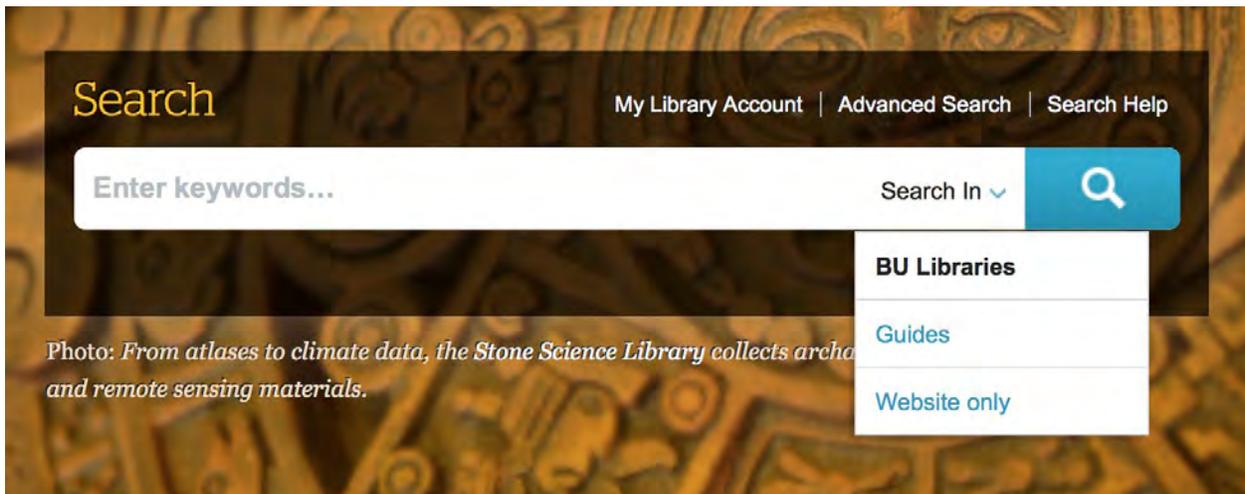
Homepage search box for Boston University Library, showing drop-down search functionality, library account login, and link for search help.
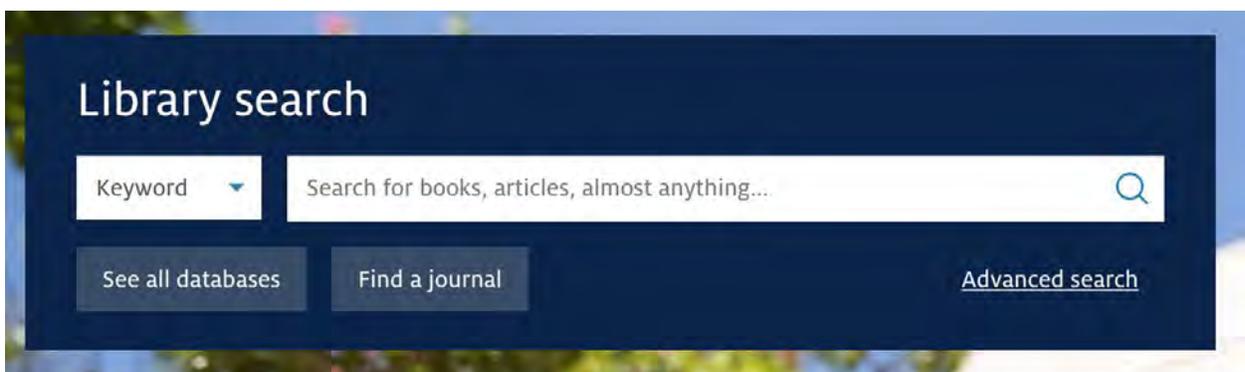
Homepage search box for the University of Arizona, showing prominent buttons for databases and journals. (https://rebeccablakiston.info/2018/07/07/primo-usability/)

Methods

Procedure

Participants completed five tasks on five different library websites. Participants included 3 undergraduate students, 3 graduate students, and 2 faculty at Montana State University. Tasks represented common tasks across these user groups:

- *Which resources would be good starting points for research in your major?*
- *You are writing a paper on music history. How would you find full-text peer-reviewed research articles published since 2010 that would be helpful for writing your paper?*
- *You want to find a recent article in the journal "Science". Does the library provide access to this journal?*
- *You have started researching for a nursing paper, and you want some help. Find a librarian who can help you with nursing research.*
- *Locate a Harry Potter print book and request that the library holds this item.*

Following task completion, participants completed the SUPR-Q survey. The survey measures website appearance, easy of use, loyalty, and credibility. Participants responded to the following set of questions on a 1-5 Likert scale (higher is better):

- This library website is credible.
- I will likely visit this website in the future.
- This website has a clean and simple presentation.
- It is easy to navigate within the website.
- I found the website to be attractive.
- This library website is trustworthy.
- This website is easy to use.

Additionally, participants responded to the following question—which produces a measure known as the Net Promoter Score—on a 0-10 scale (higher is better):

- How likely are you to recommend this site to a friend or classmate?

Data collection

Qualitative observational notes were recorded during the sessions. From this, we were able to determine paths selected, verbal feedback, and general comments. Qualtrics was used to collect and analyze quantitative survey data.

Websites in the Study

Participants completed tasks on five different library websites: Stanford University, North Carolina State University, University of North Texas, Montana State University, and Bond University. MSU was chosen as our home institution. Other schools were chosen for the features of their homepage search box and the search results interface: drop-down search options, tabbed search interfaces, and various Bento Box options.
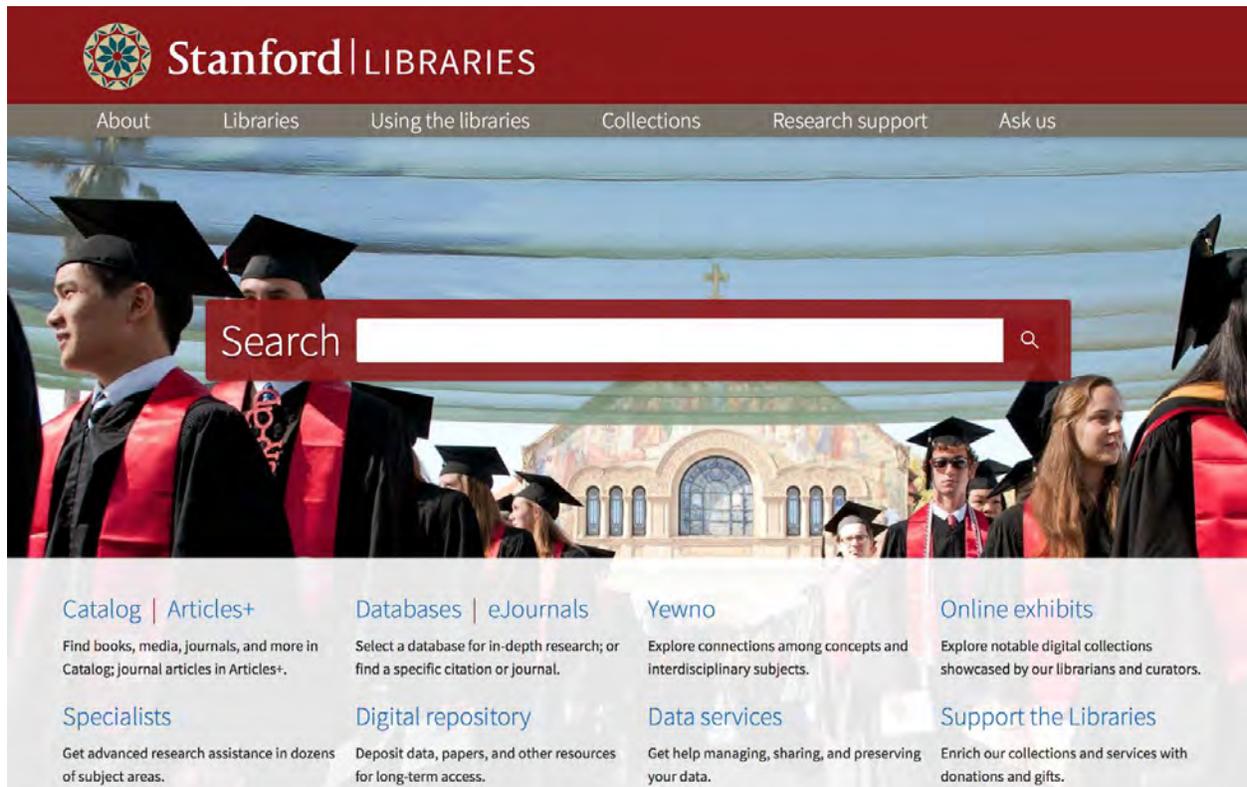
Stanford University - Library Website
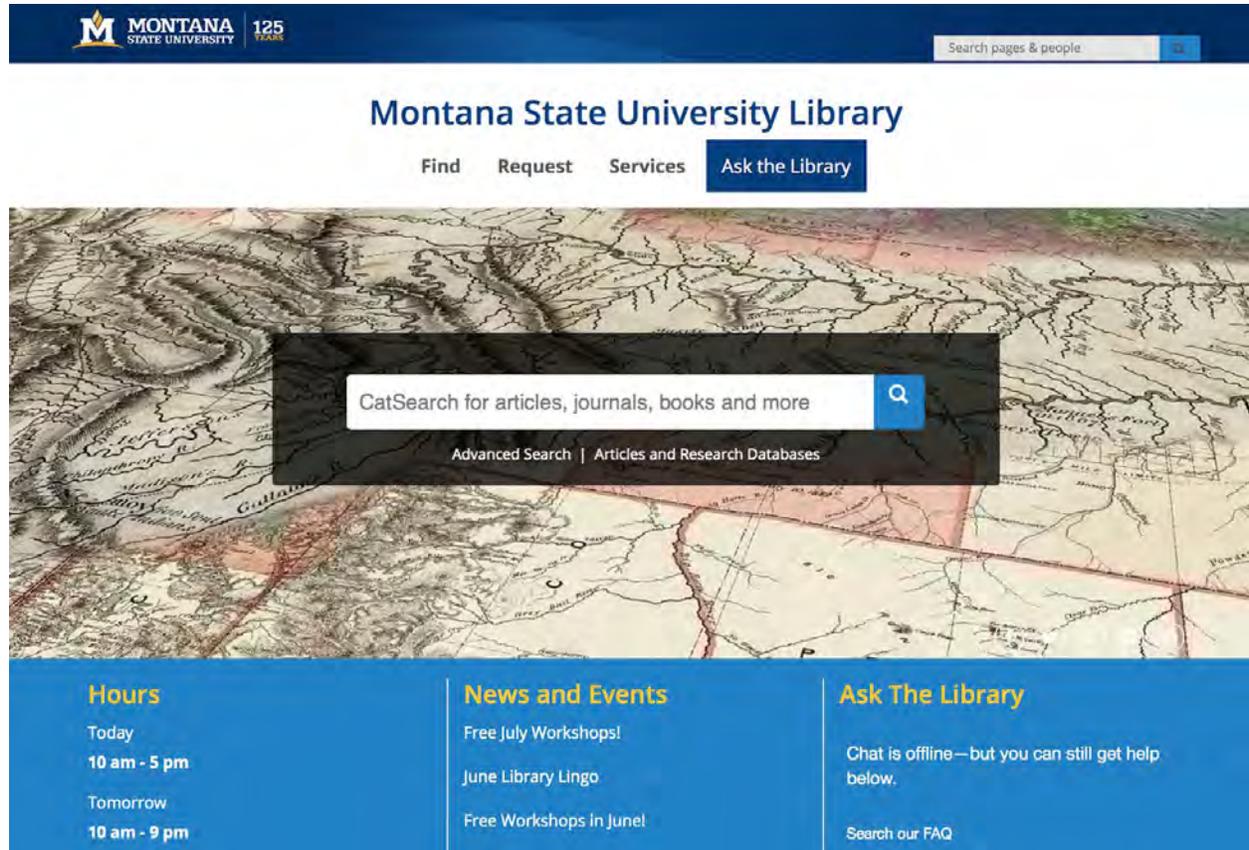
Montana State University - Library Website
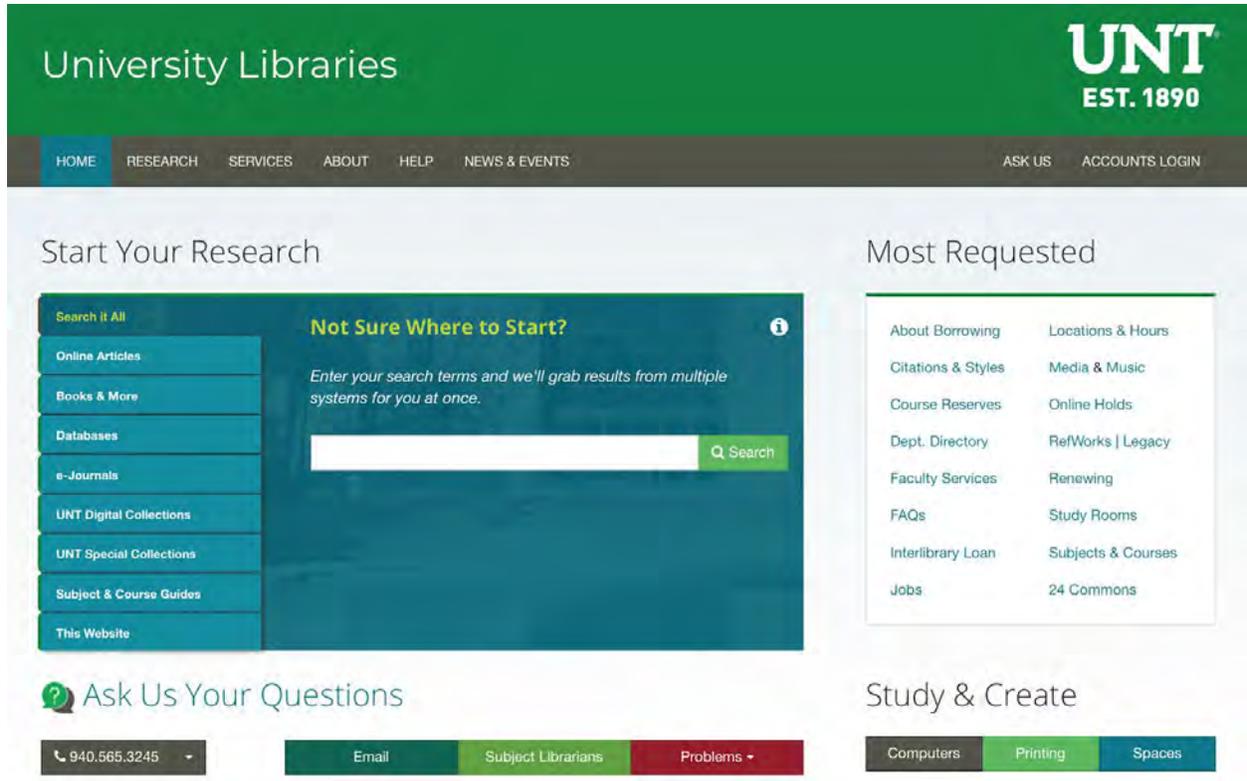
University of North Texas - Library Website

Bond University - Library Website
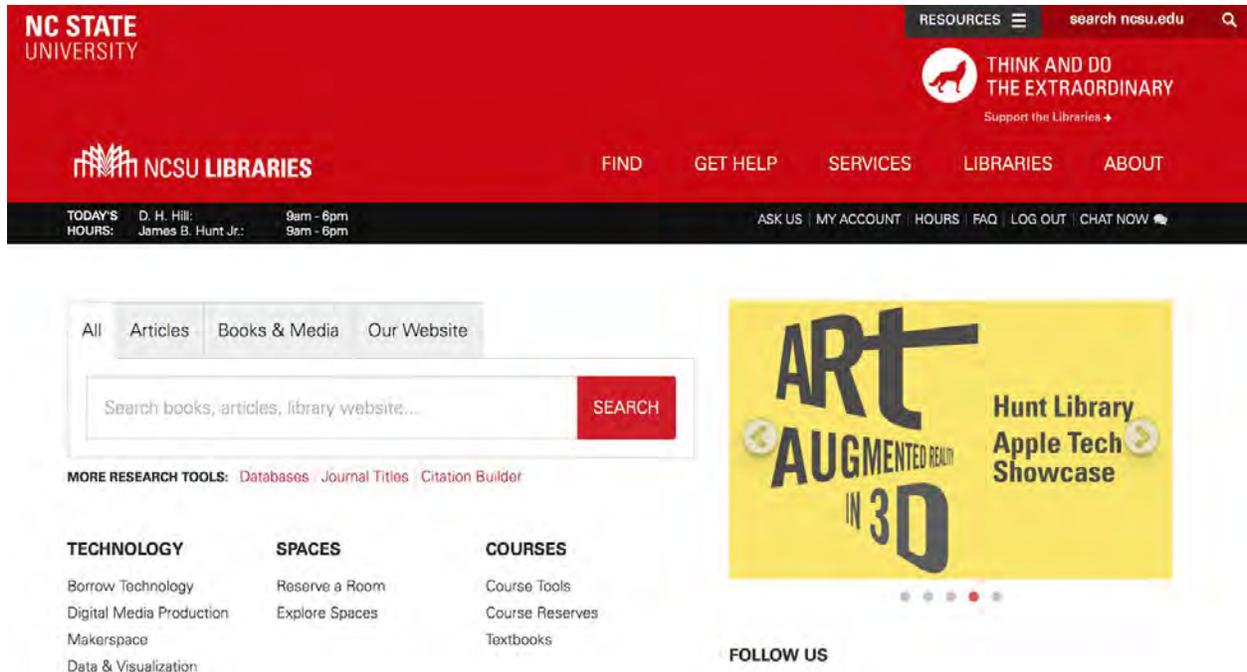
North Carolina State University - Library Website

	Tabbed Search Box on the Homepage	Single Search Box on the Homepage	Drop-Down Search Box on the Homepage	Bento Box Results Interface	Primo Results Interface
UNT	X		X	X	
Bond	X				X
MSU		X			X
Stanford		X		X	
NCSU	X		X	X	

Table 1: Search UX features for each library website in this study

Summary of Quantitative SUPR-Q Results

Institution	Credible	Clean and Simple	Easy to Use	Likely to Visit	Attractive	Trustworthy	Easy to Navigate	Overall Average	Net Promoter Score - Average
MSU	5	4	4	5	4	5	4	4.4	8.8
UNT	4	4	4	4	4	4	4	4	7.6
Stanford	4	4	4	4	4	4	3	3.9	7
NCSU	4	4	3	3	3	4	3	3.4	5.7
Bond	4	3	2	3	3	3	2	2.9	4.4

Table 2: Summary of SUPR-Q results

Appendix: Detailed Quantitative Survey Results and Qualitative Observations by Institution

Bond - SUPR-Q Results

This library website is credible.
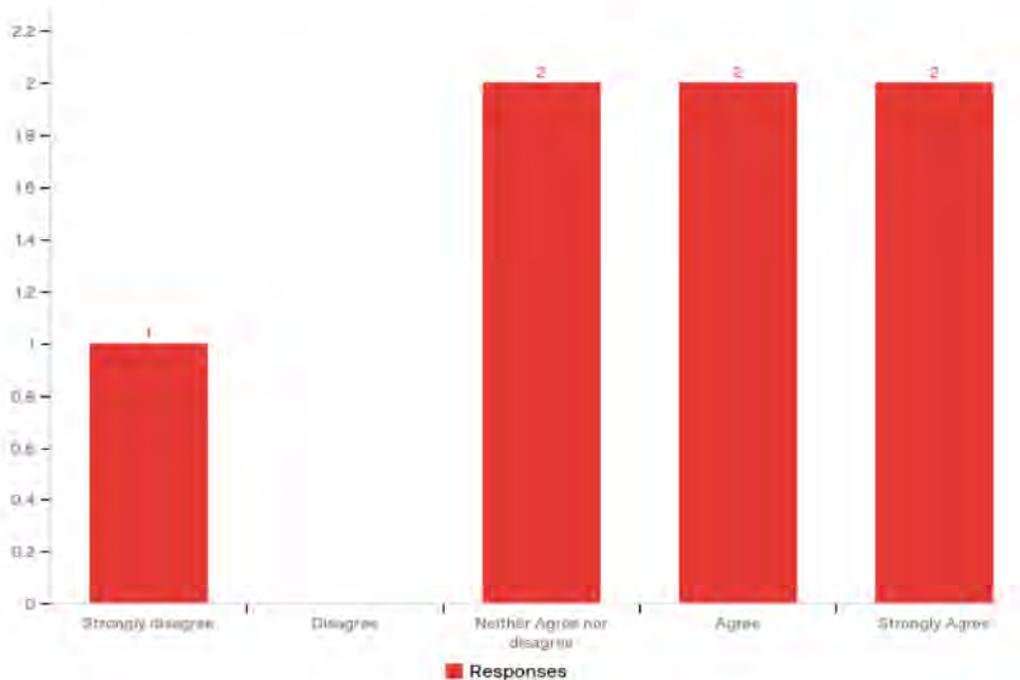
9

This website has a clean and simple presentation.
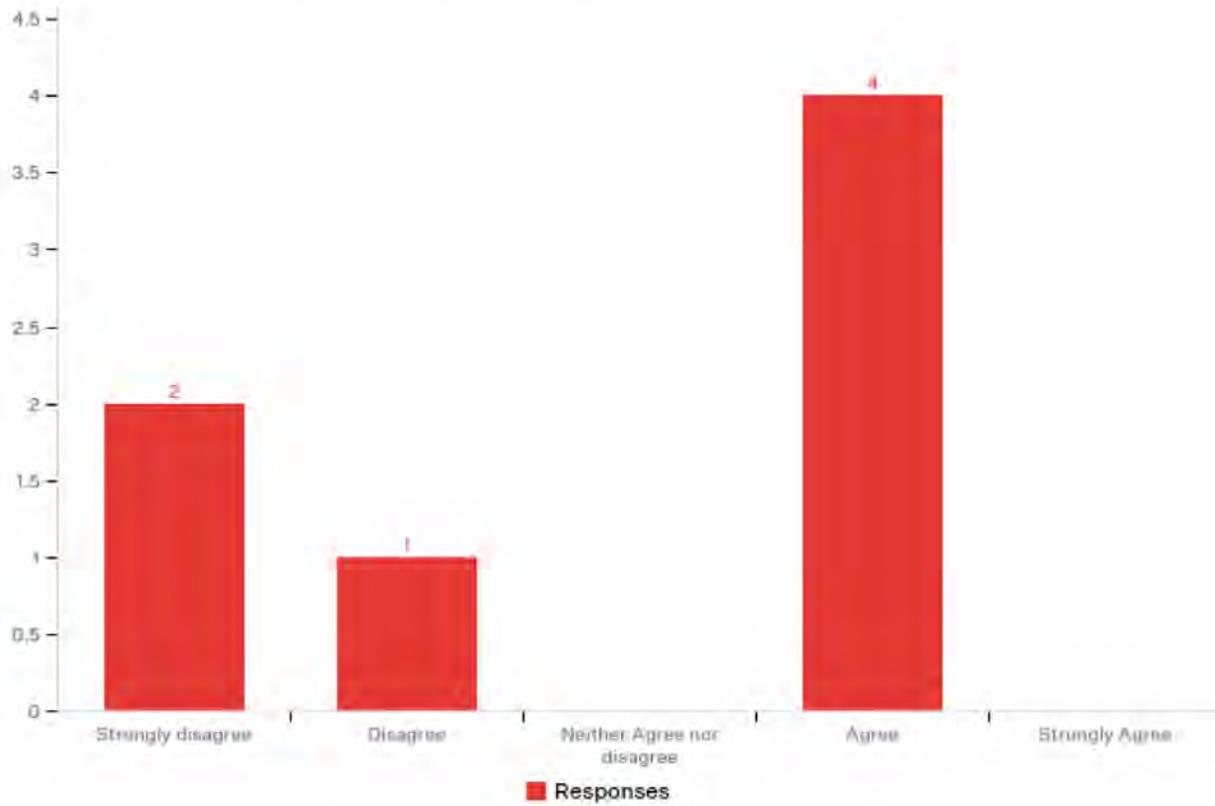
This website is easy to use.
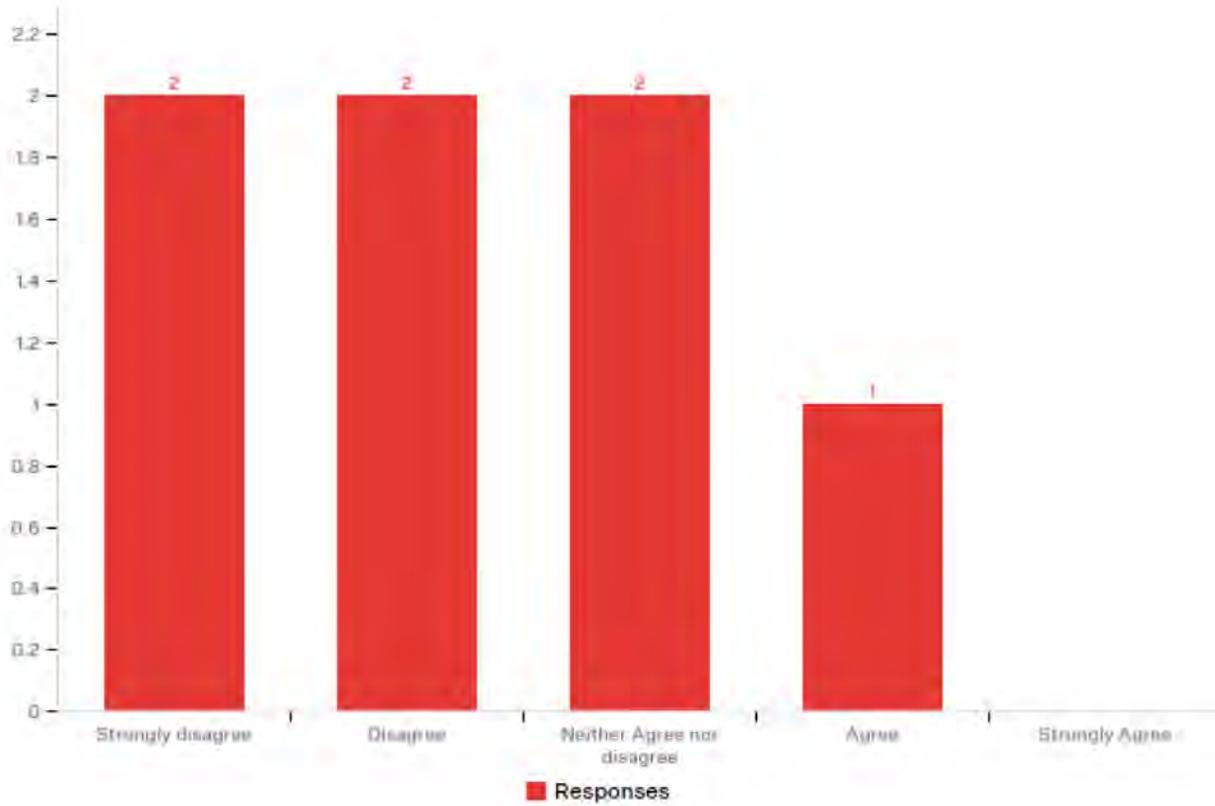
I will likely visit this website in the future.
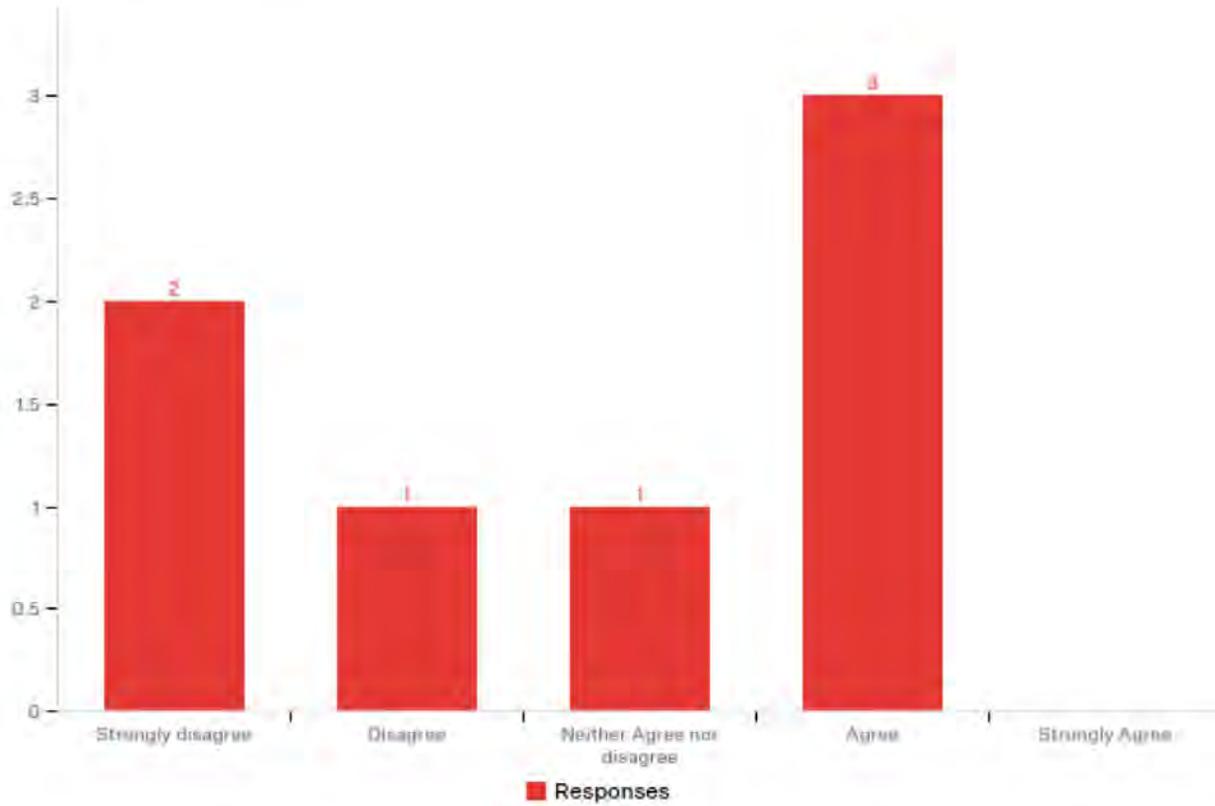
I found this website to be attractive.
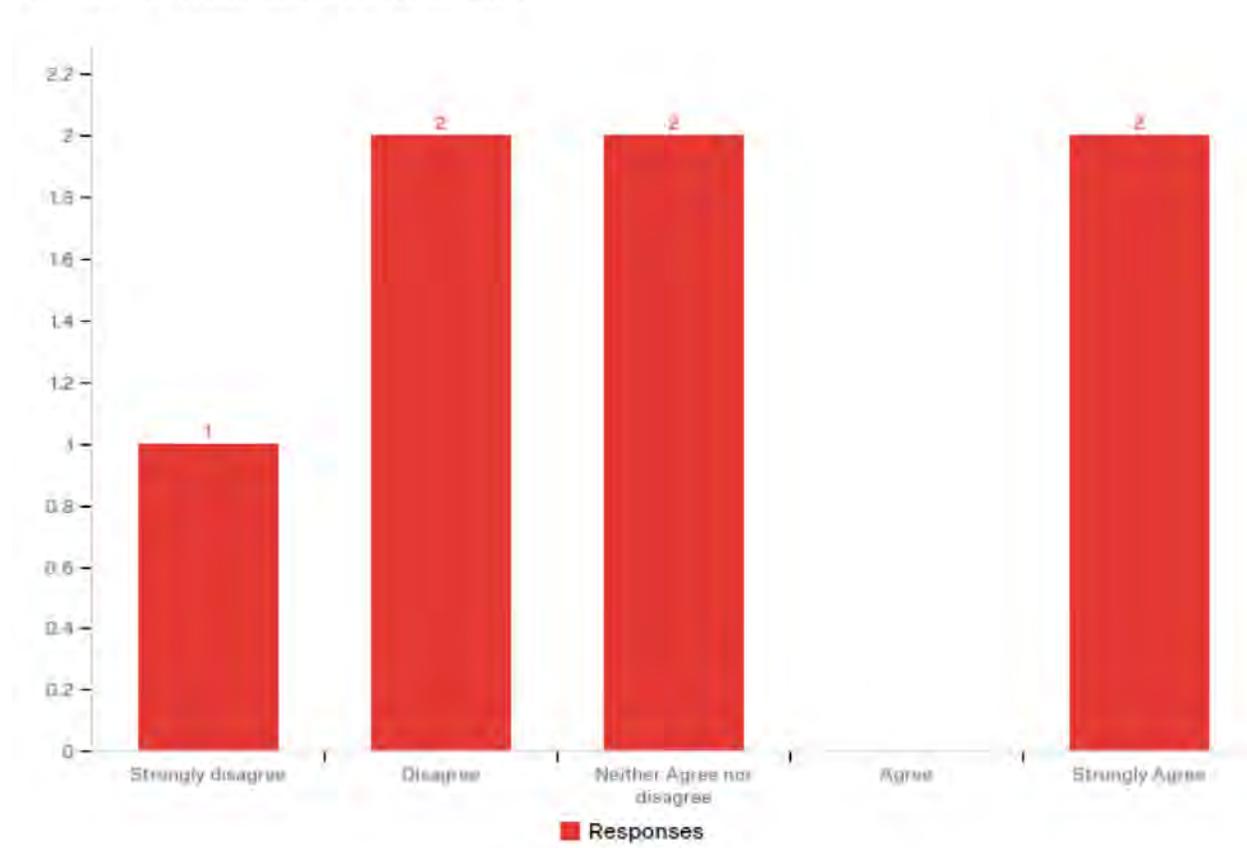
This library website is trustworthy.
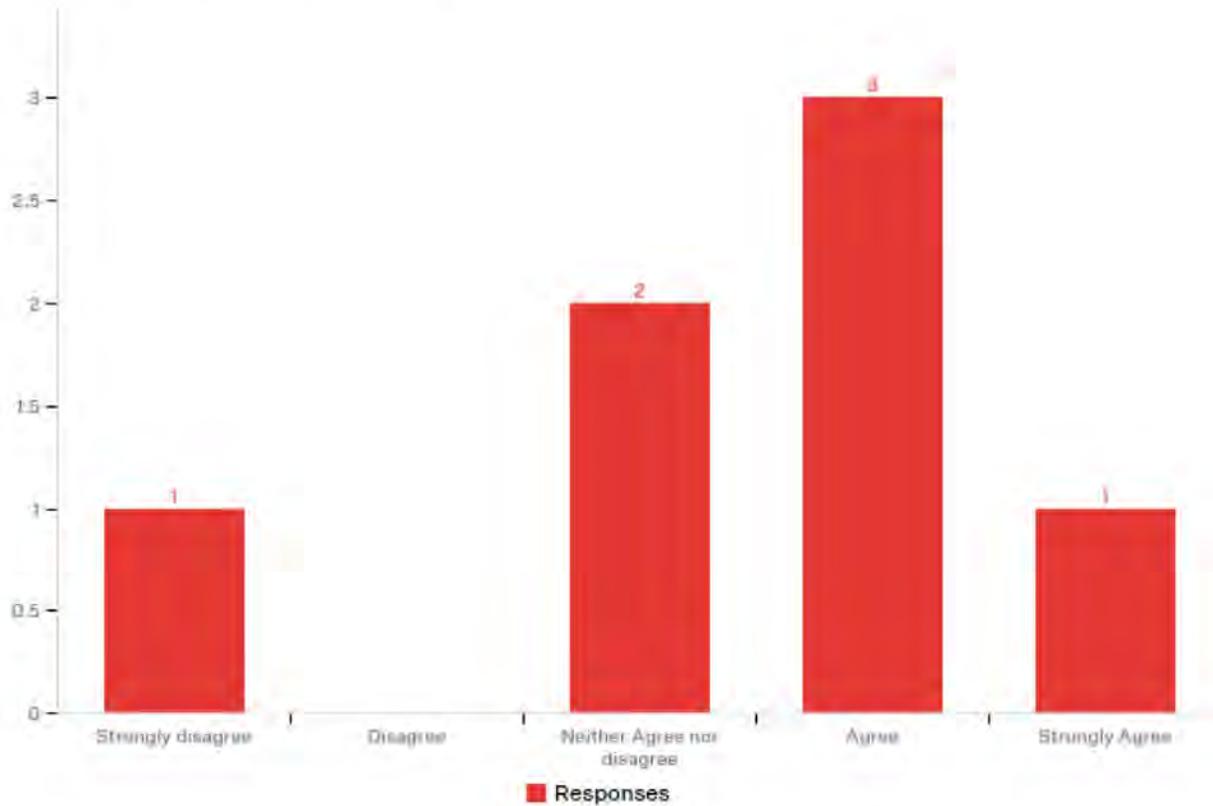
On a scale from 0-10, how likely are you to recommend this site to a friend or classmate? 0-6 = detractor. 7-8 = Passive. 8-9 = Promoter.

Bond - Observational Notes

- Undergraduate students began the process in the main search bar on the homepage while graduate and faculty researchers wanted to locate specific types of searches (for example, eJournals or databases).
- Most undergraduate students were successful in locating a resource while the menu design and structure of this website caused graduate and faculty students to become lost.
- For specific tasks, most participants wanted to navigate to a specific area (eJournals, Articles, Resources By Subject) rather than using the search bar on the homepage.
- Feedback revealed lack of Advanced Search options from the homepage search. It seemed users were unaware that they could run a search first and then apply filters; they wanted to apply filters first.
- All users tried to find a specific link to search for or limit to journals. One noted the lack of options to filter in the Primo Journal Search. Others were not confident that they located the correct journal title.
- Users were easily able to locate the 'Ask a Librarian' button and locate a nursing librarian.
- The majority of users were able to successfully figure out how to place a hold on an item. A few noted that the book title they wanted didn't show up immediately in the search results, and they seemed reluctant to use filters or navigate past first page of results.
- Users did not like that this site did not "define" options (eJournals, Databases).
- This site also caused a lot of frustration for users who did not want to visit the site again.
- Feedback also stated the site was too "clean and simple".

NCSU - SUPR-Q Results

This library website is credible.
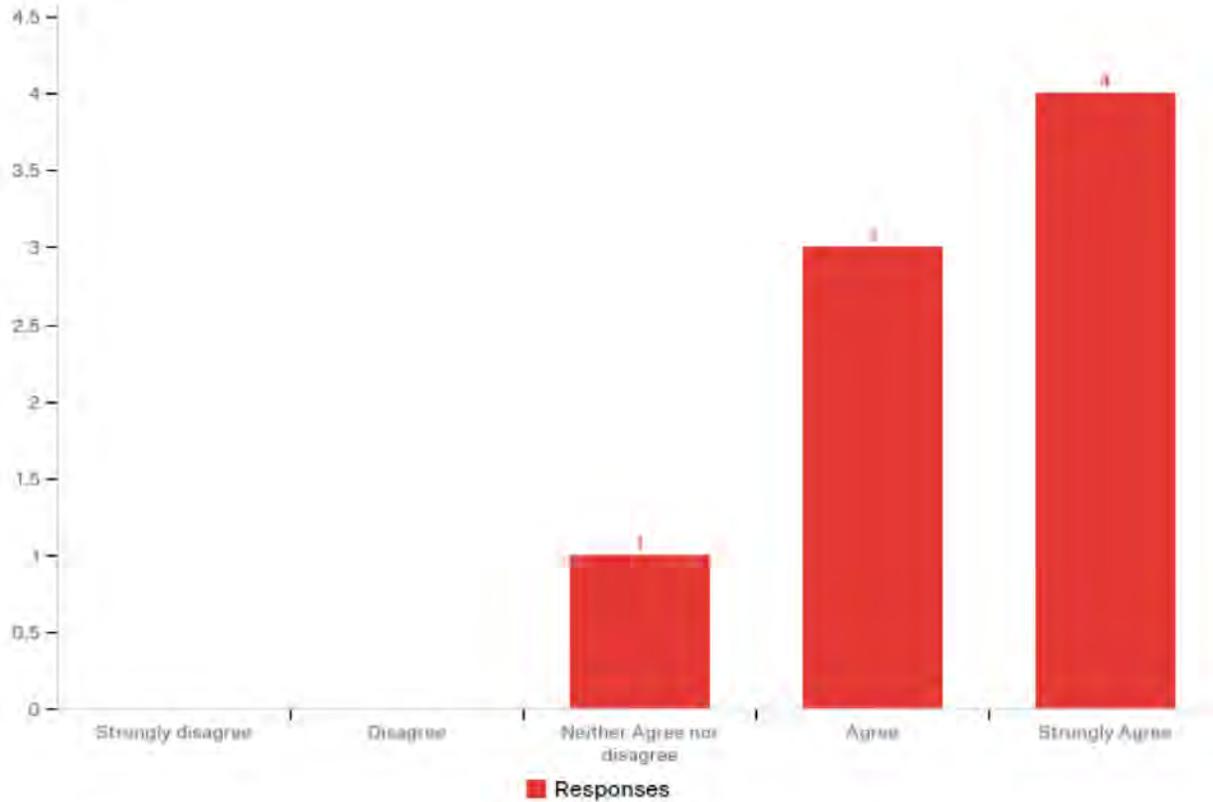
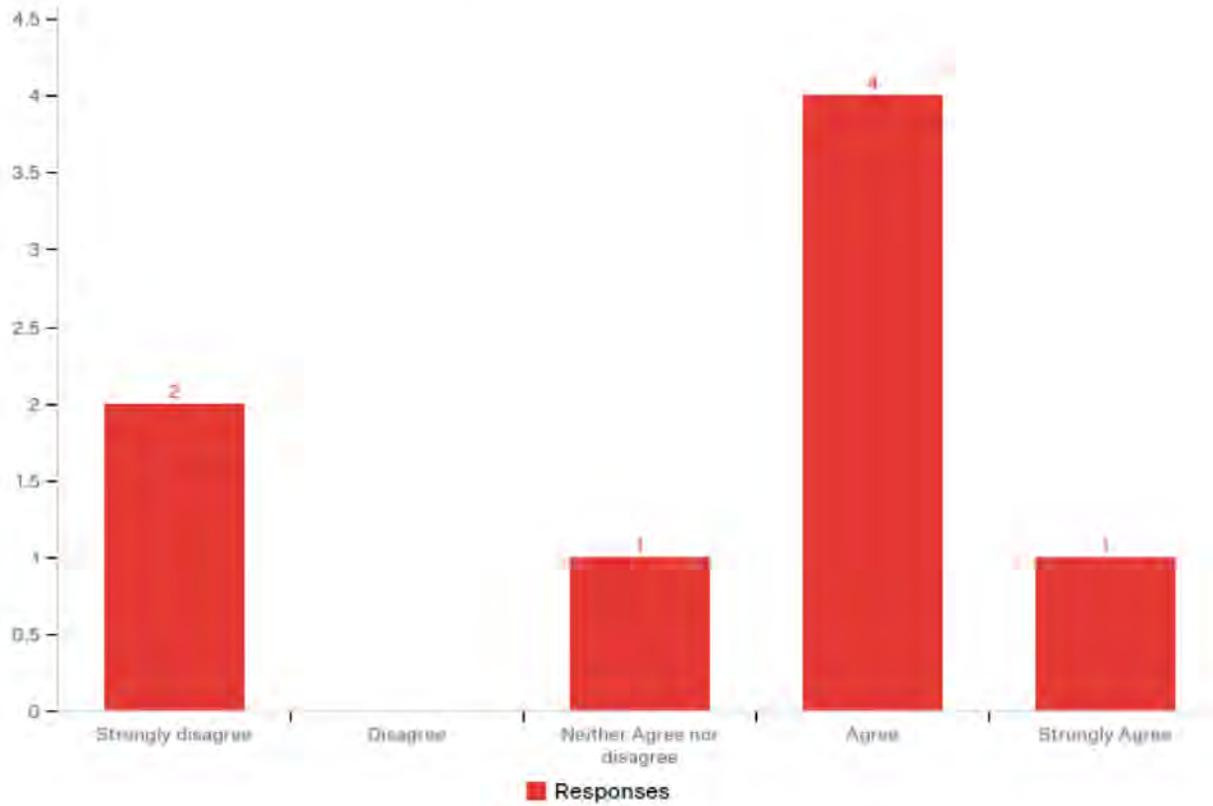This website has a clean and simple presentation.
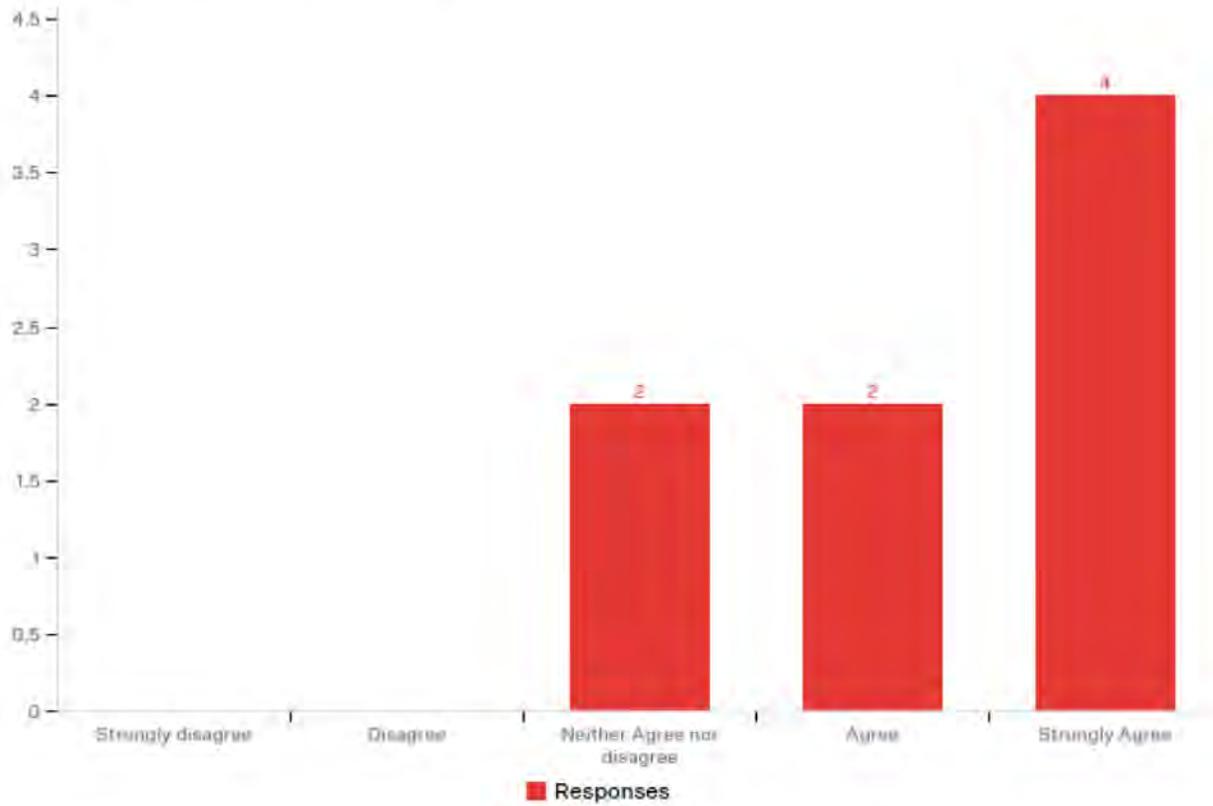
This website is easy to use.
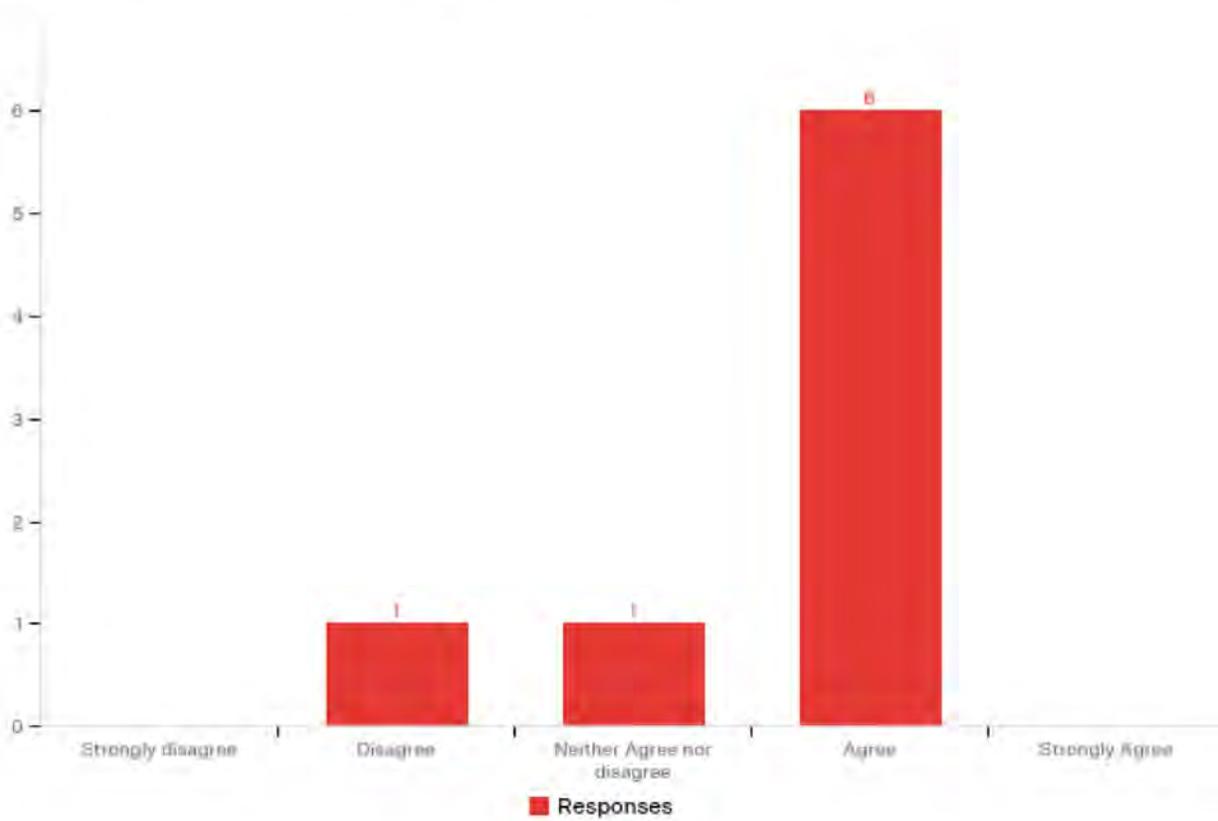
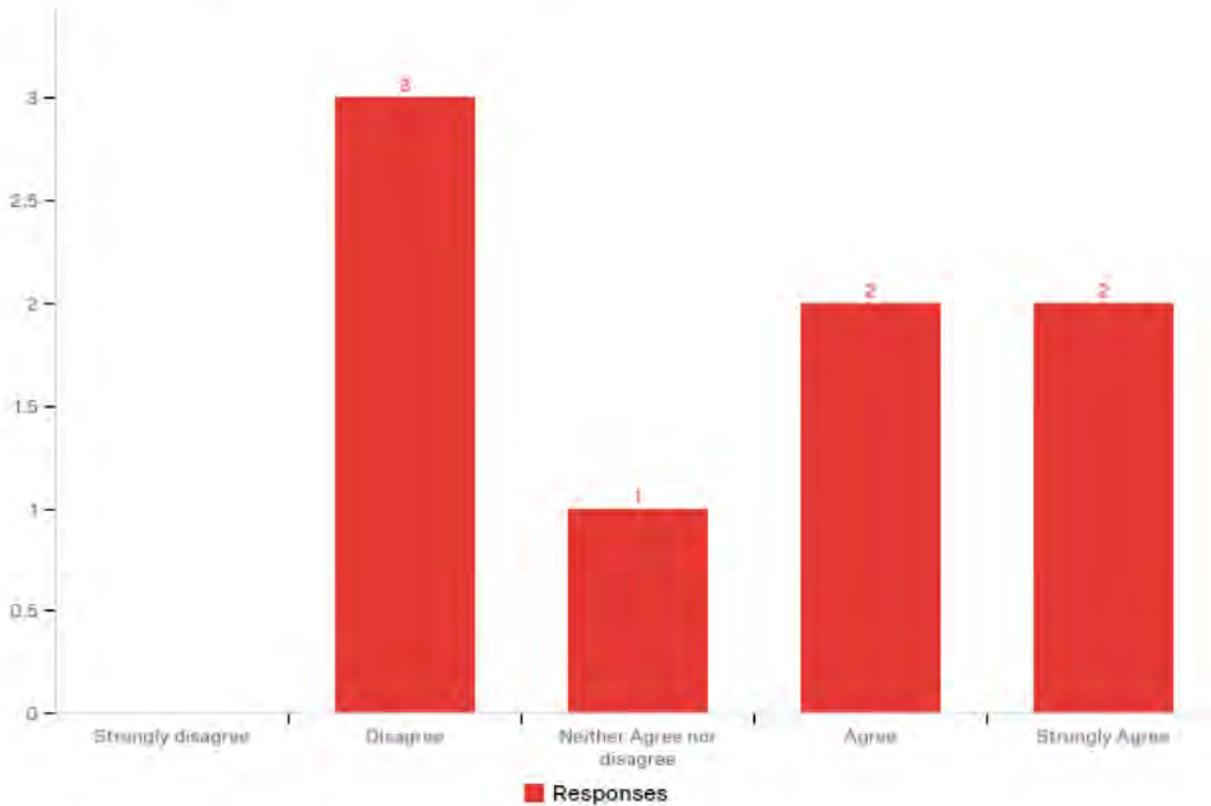I will likely visit this website in the future.
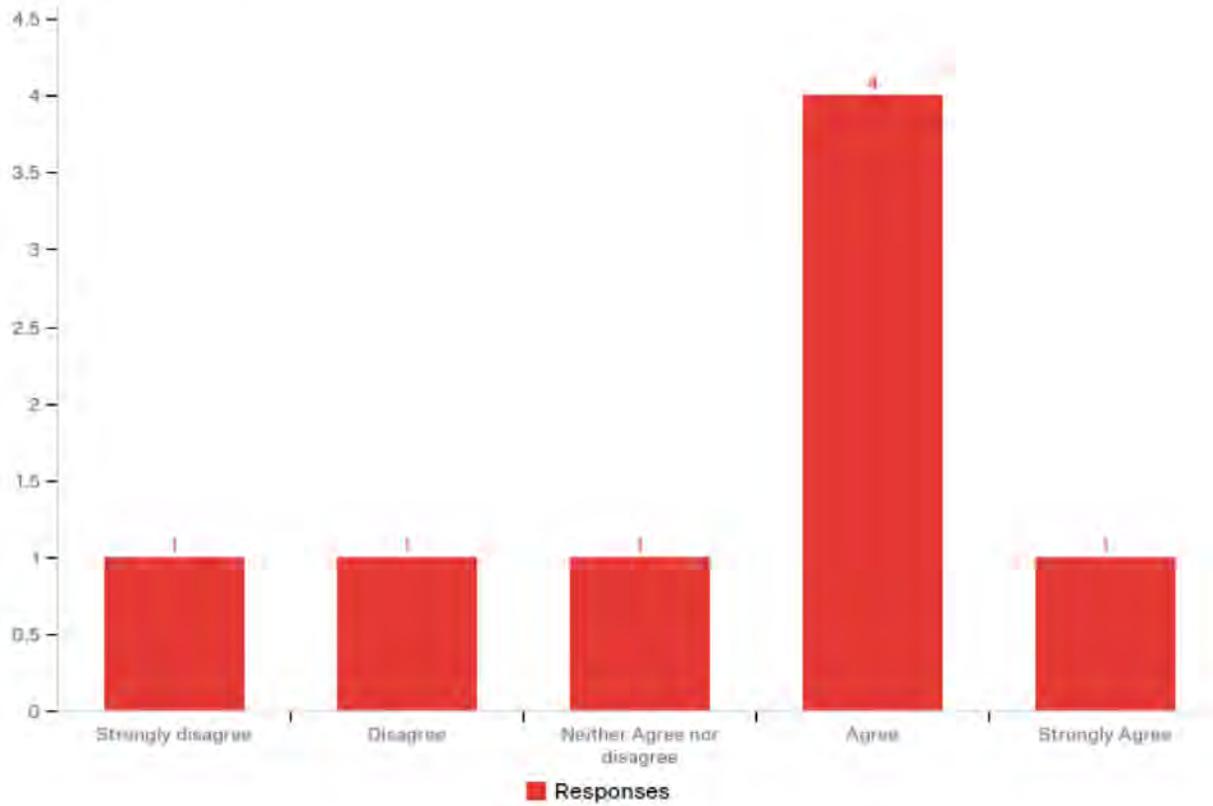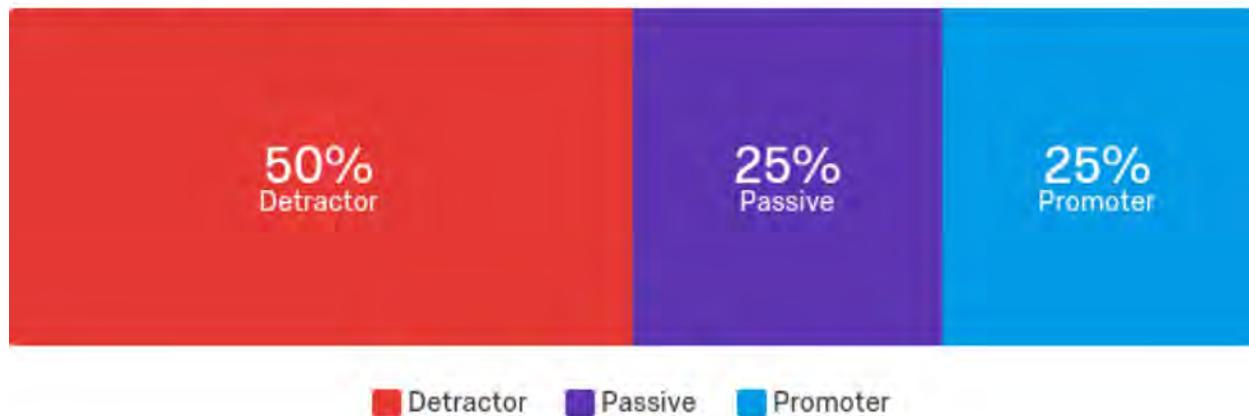
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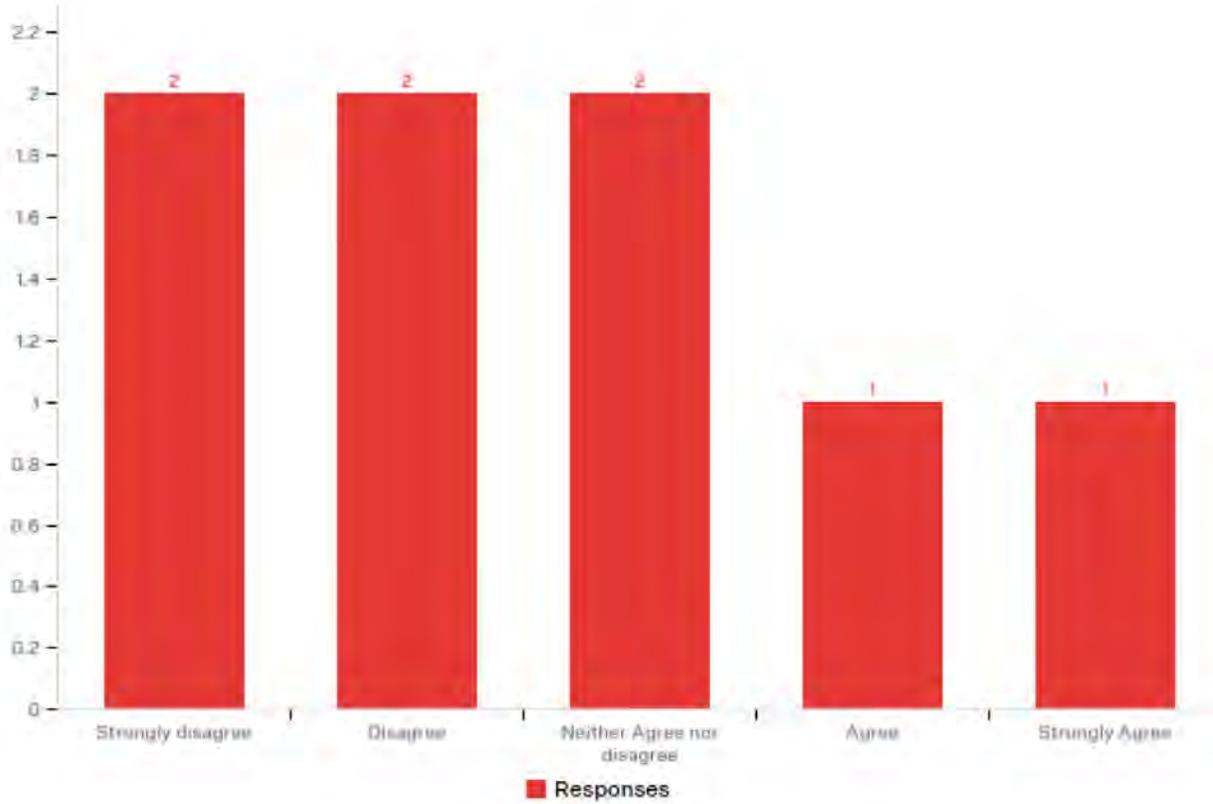
This library website is trustworthy.

It is easy to navigate within the website.

On a scale from 0-10, how likely are you to recommend this site to a friend or classmate? 0-6 = detractor. 7-8 = Passive. 8-9 = Promoter.


| 50% Detractor | 25% Passive | 25% Promoter |

NCSU - Observational Notes

- Graduate and faculty wanted very specific resources for their research. Most wanted specific databases or material types such as print books. Undergraduates were generally more comfortable entering their research into the main search bar, but they did note it was nice to limit to peer review at the beginning of their search.
- Most users struggled to limit the date range of their search. They also noted the lack of an advanced search option from the homepage.
- All users were easily able to locate 'Journal Title' search, however, none of them seemed confident on the dates of coverage of a specific journal title available to them nor did they know what link into a journal they should use.
- All users struggled to find a specific librarian to help them with their research. Many tried to use 'Researcher Support' which did not lead them to a Librarian. Others noted liking the icons on some of the subpages of this website.
- Users commented on being overwhelmed by the number of search results that were returned when looking for a specific book title along with the number of non-book materials that were also returned in the search results. Most of the undergraduate users limited their searches to books in the homepage search.
- Overall, users noted that this site could be simpler as there were a lot of links which was confusing.
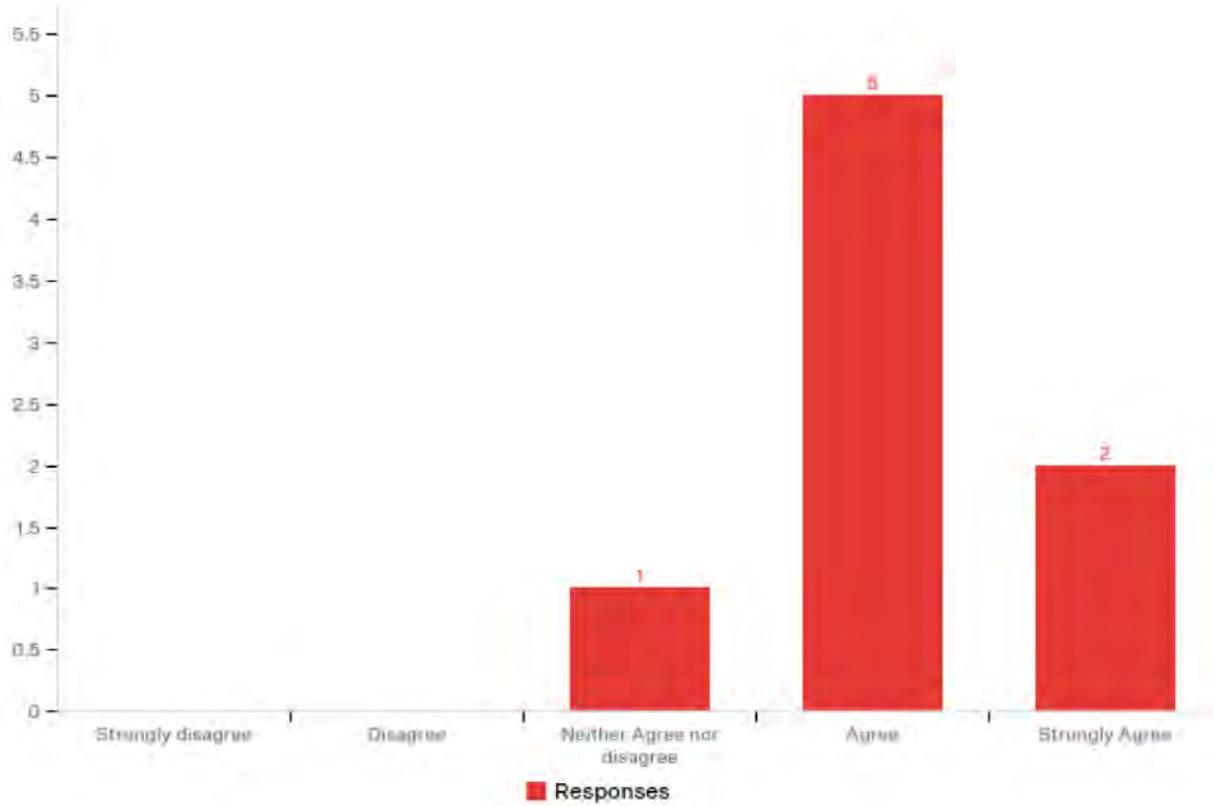
MSU - SUPR-Q Results
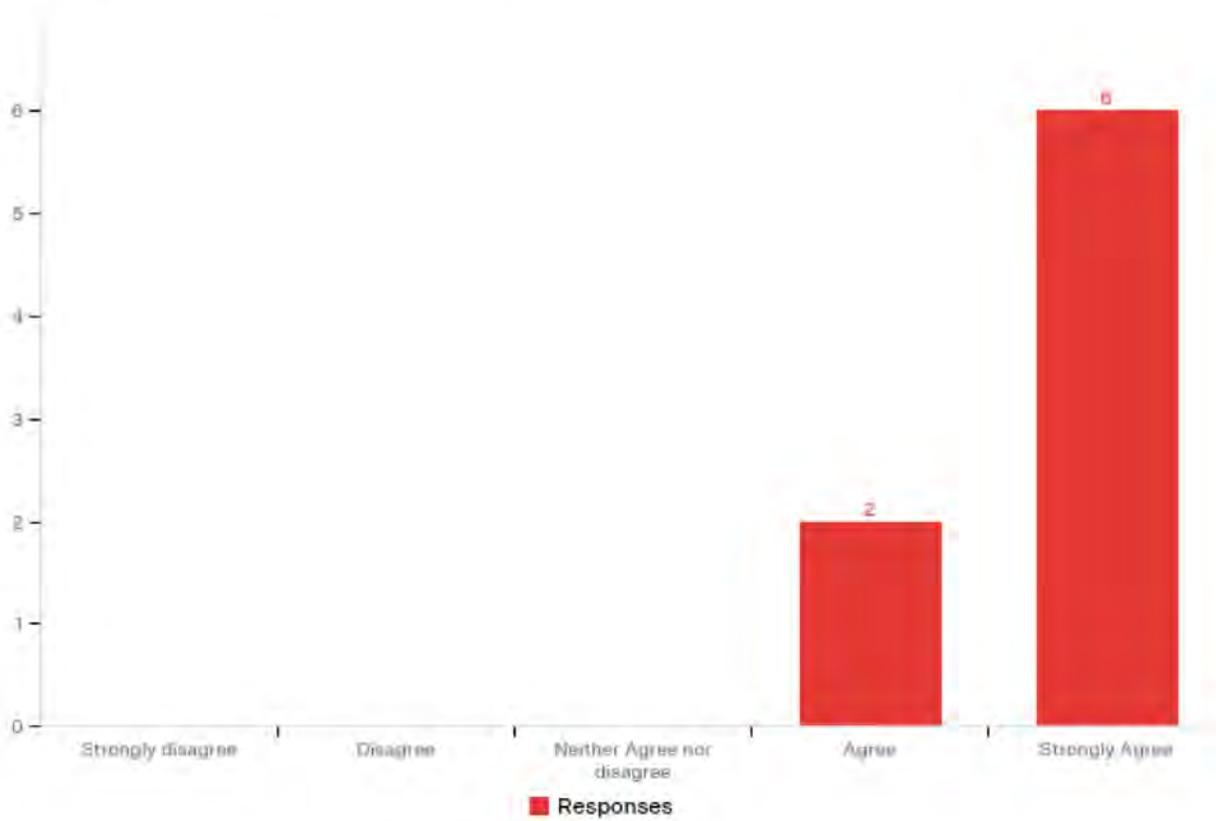
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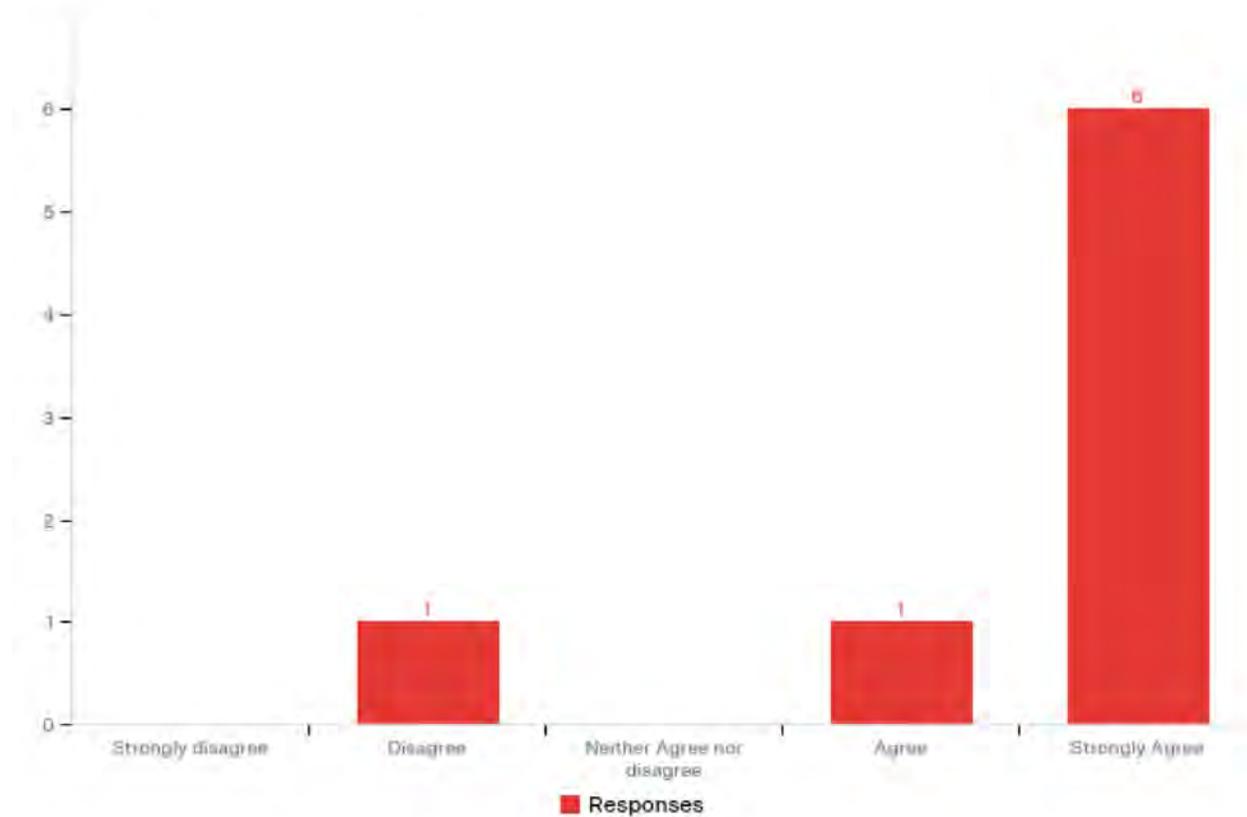
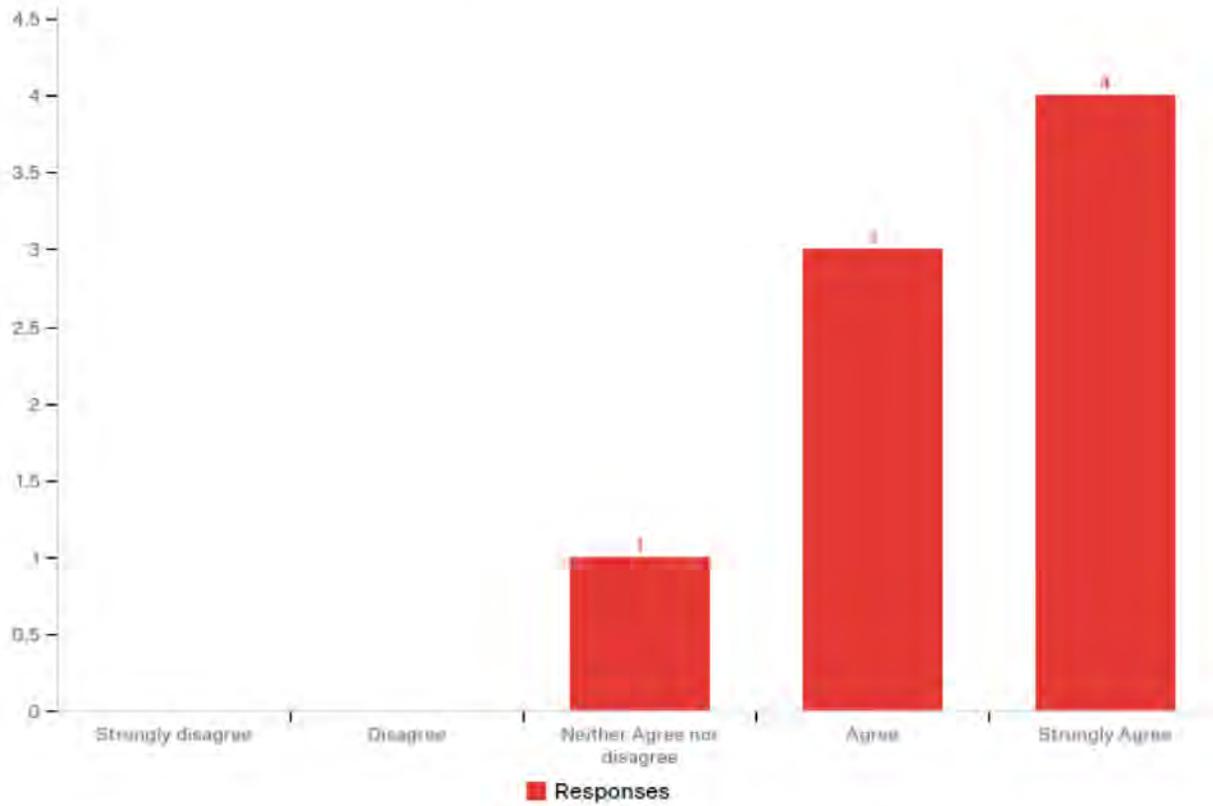This website has a clean and simple presentation.
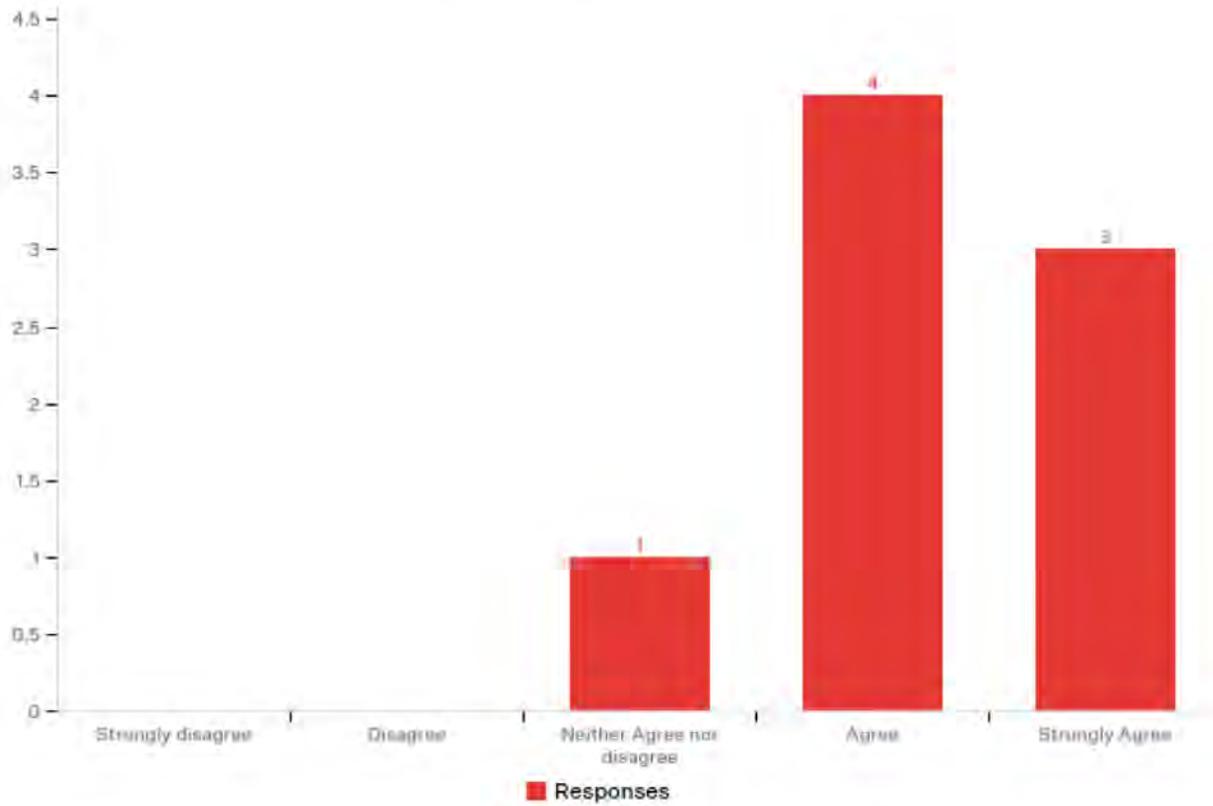
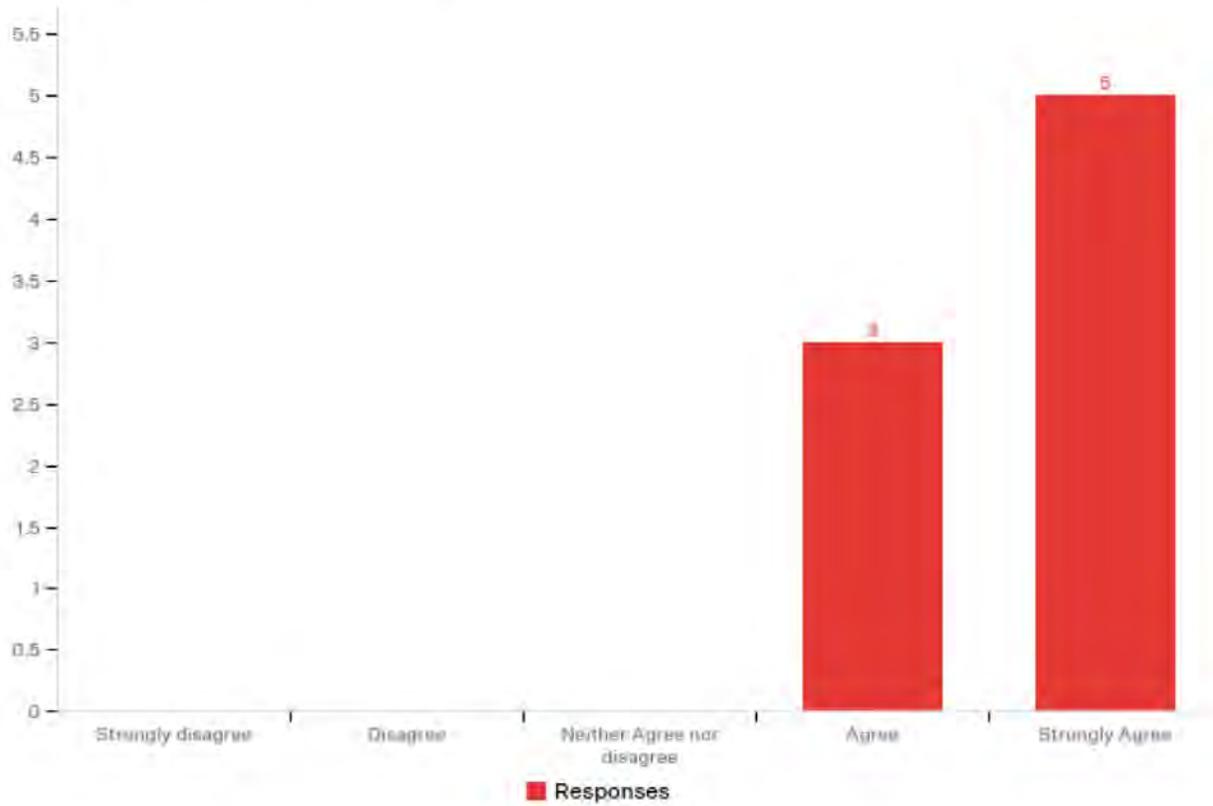This website is easy to use.

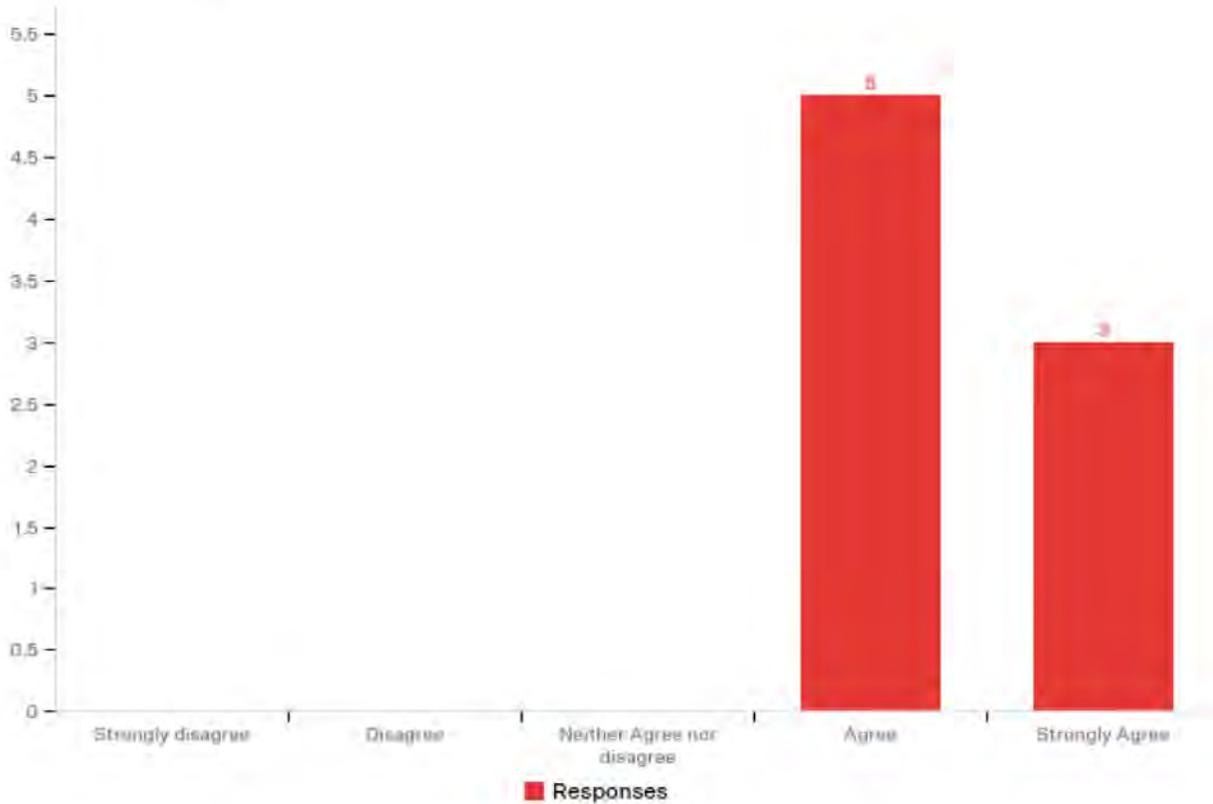I will likely visit this website in the future.

I found this website to be attractive.

This library website is trustworthy.

It is easy to navigate within the website.

On a scale from 0-10, how likely are you to recommend this site to a friend or classmate? 0-6 = detractor. 7-8 = Passive. 8-9 = Promoter.


MSU - Observational Notes

- It seems most users opted for a specific search (Articles and Research Databases, Books and Media). Users who opted to use CatSearch did not seem to know what kinds of results would be returned but seemed happy with the results.
- Users tended to lean towards selecting a specific search, Articles and Research Databases, and then navigate to By Subject. Most users were able to limit to peer-reviewed and a specific date range using the Primo facet.
- The more advanced users navigated that were familiar with MSU Library's website navigated to Journal Search while undergraduates entered journal title in the main search bar.
- Graduate and Faculty users who were familiar with MSU Library Subject Liaison program were easily able to locate Subject Librarians under the Services page, however, undergraduate users weren't as familiar with this terminology and had to make multiple clicks to find the nursing Librarian.
- Users did not seem positive that if they signed into the system, they would be able to place a hold, although all users were able to successfully locate a specific book in Primo.
- Various users comments included repetitive tabs on the homepage and redundancy of information on many of the website pages.
- Adding Journal Search under main search bar on homepage would be an improvement.
- Adding login links to the Library's homepage would be effective as user was not sure how to check what items she had on loan.
- One user noted the simpleness of the site,and that more information could be useful. He also suggested drop down menus on search box or search pre-faceting in the box.
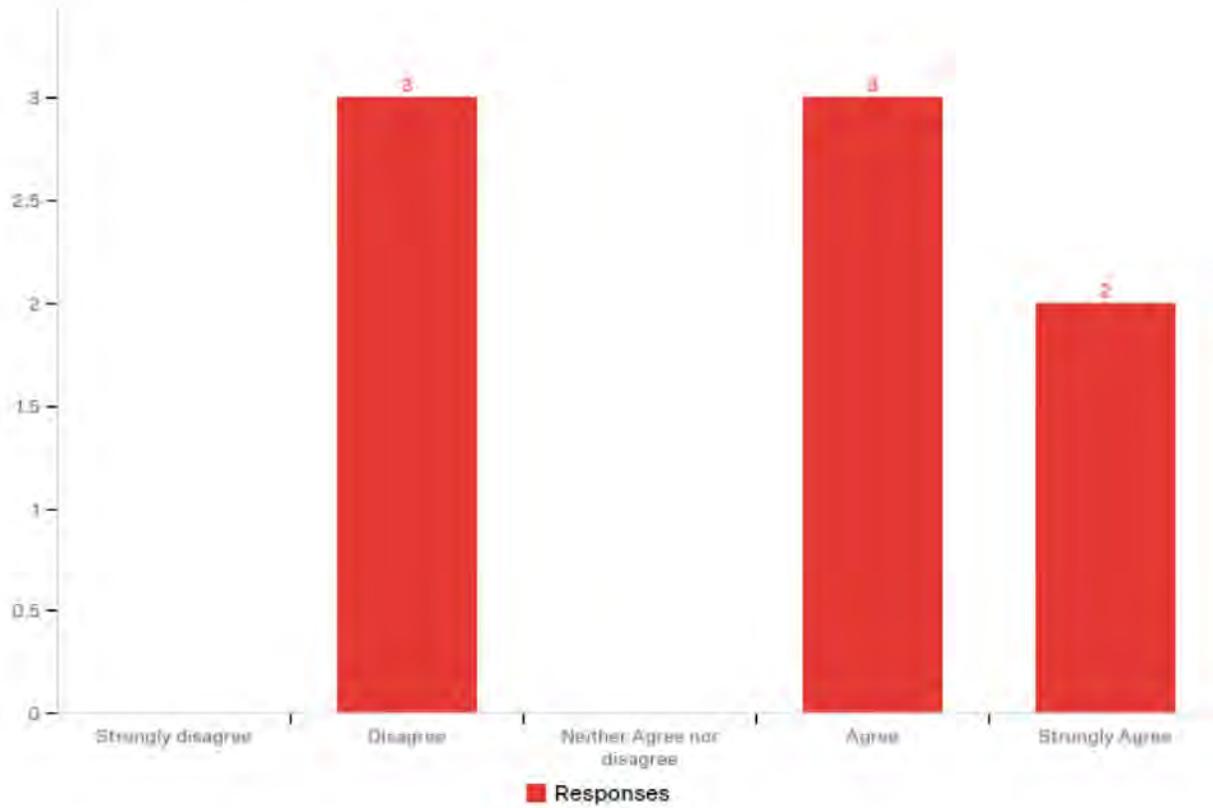
Stanford - SUPR-Q Results
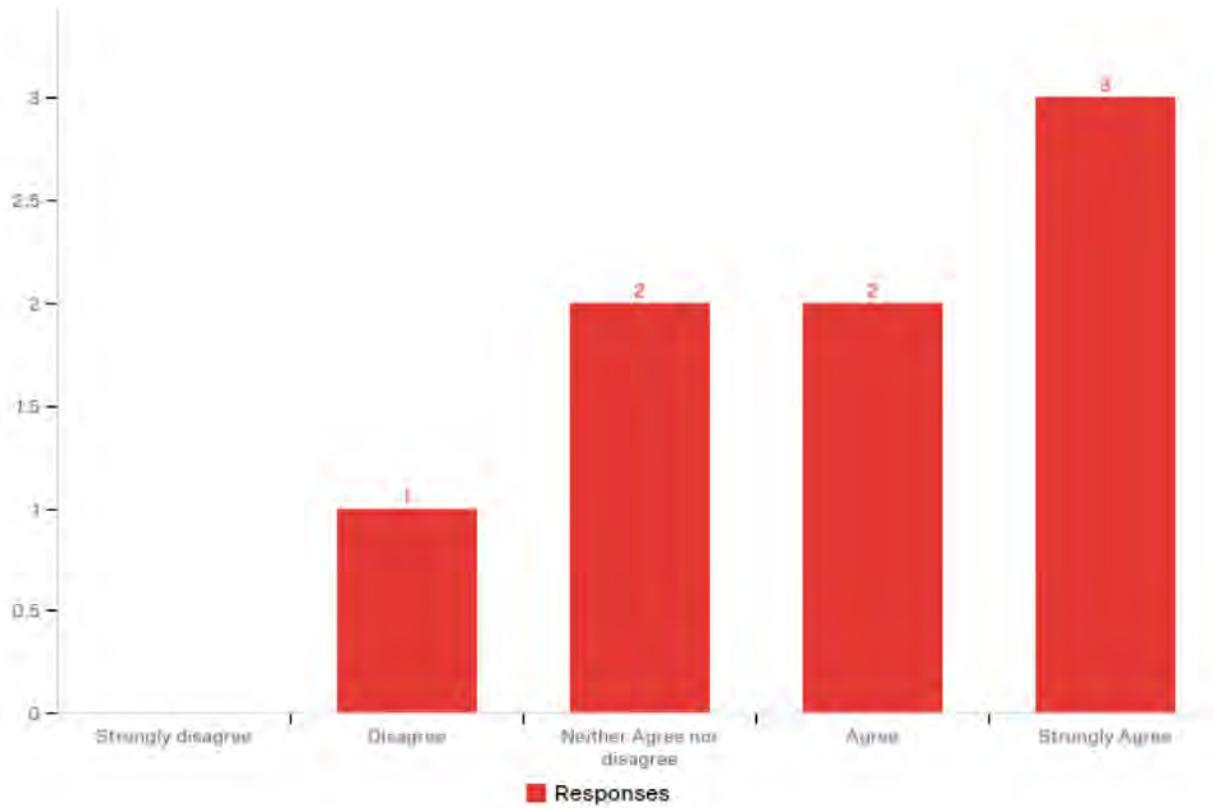
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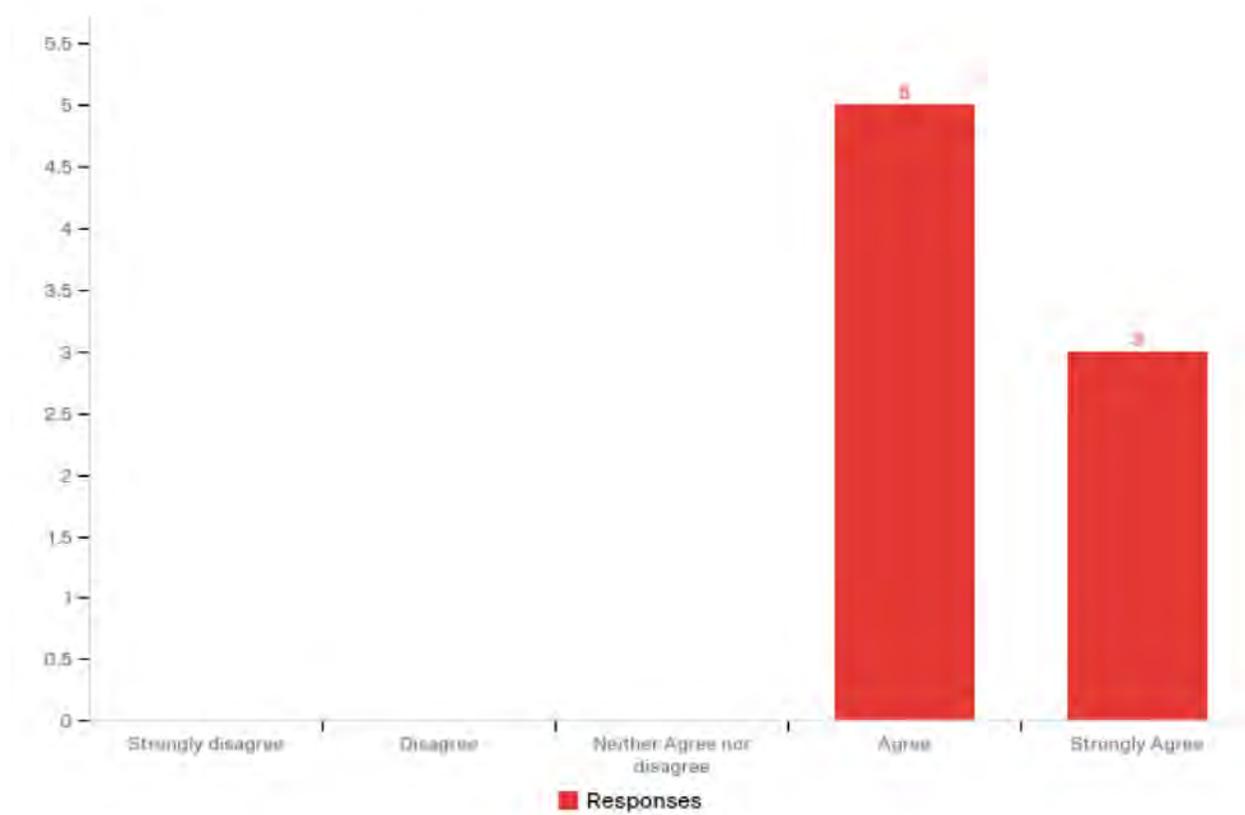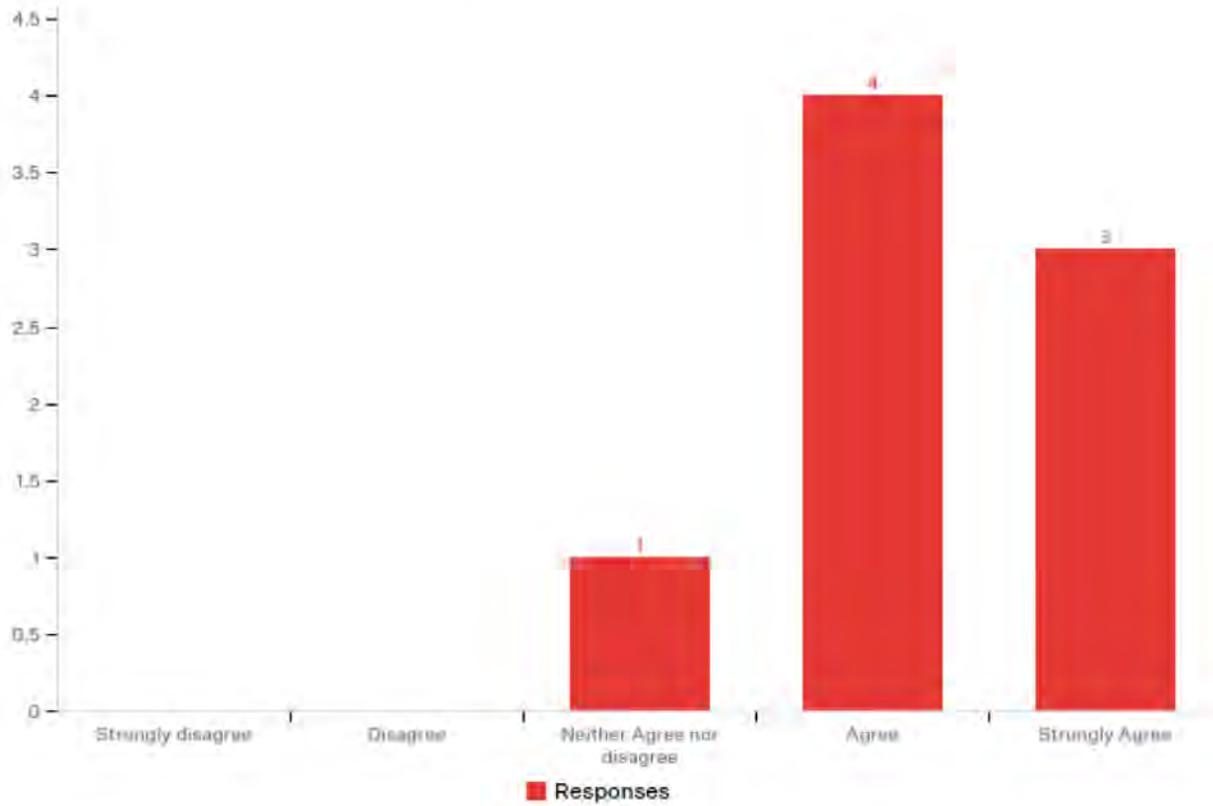
This website has a clean and simple presentation.
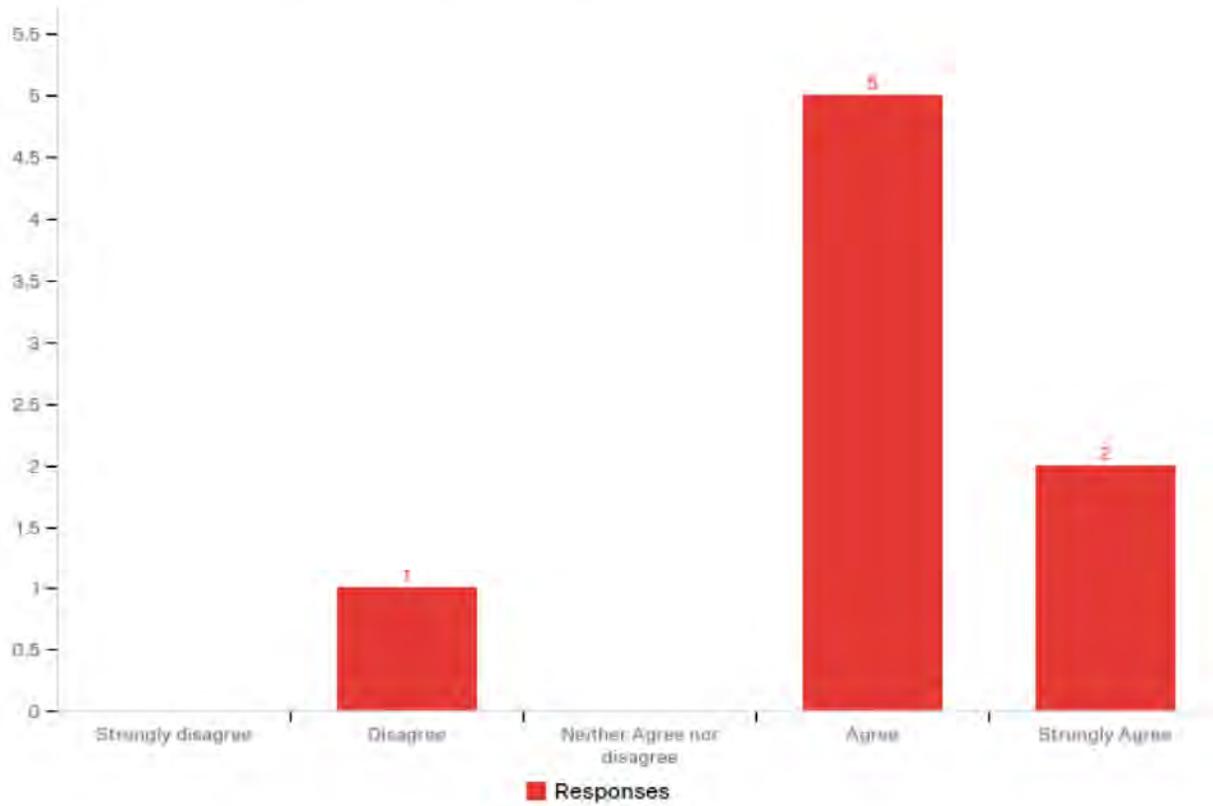
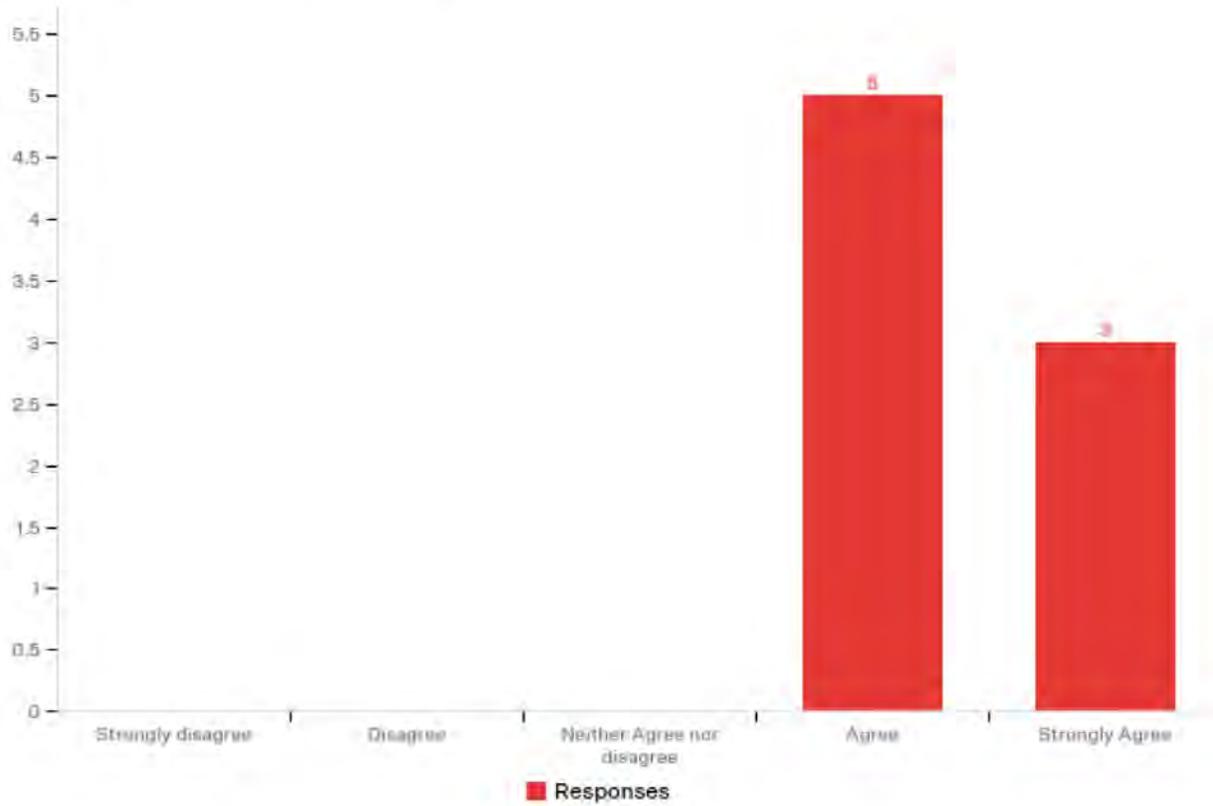This website is easy to use.

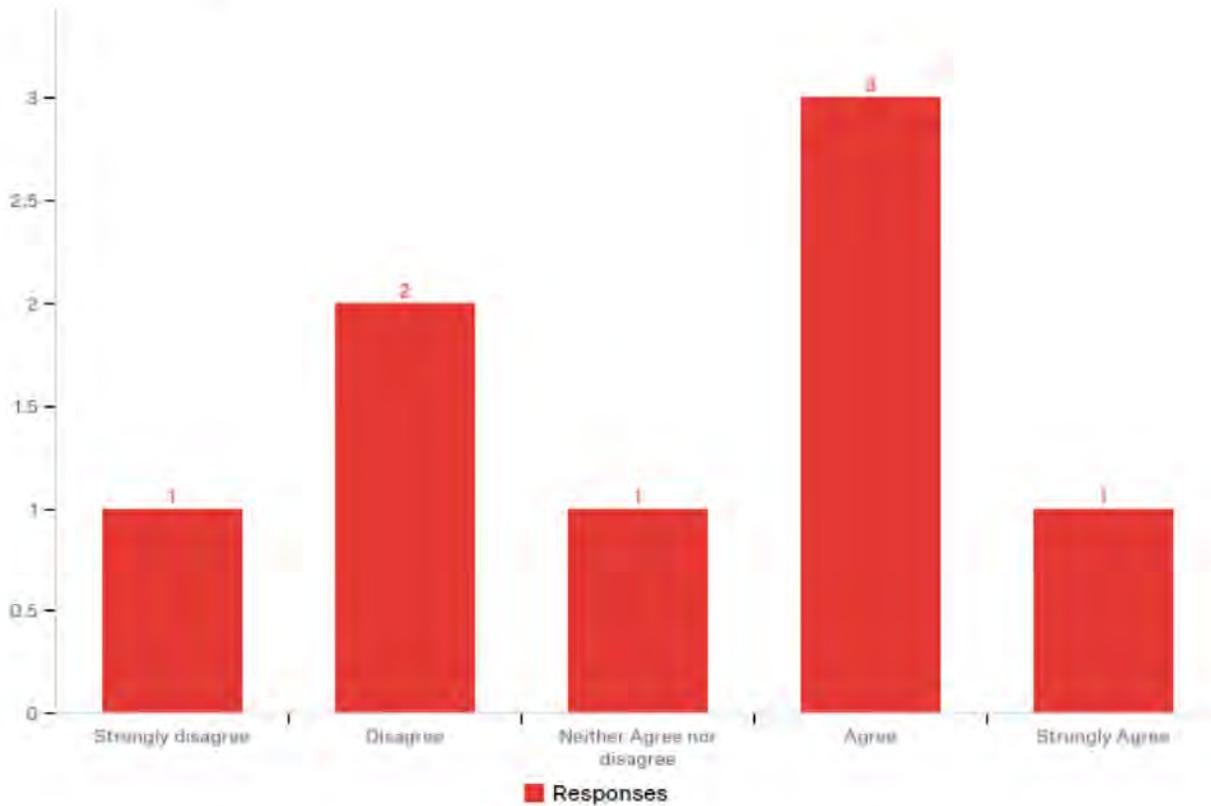I will likely visit this website in the future.

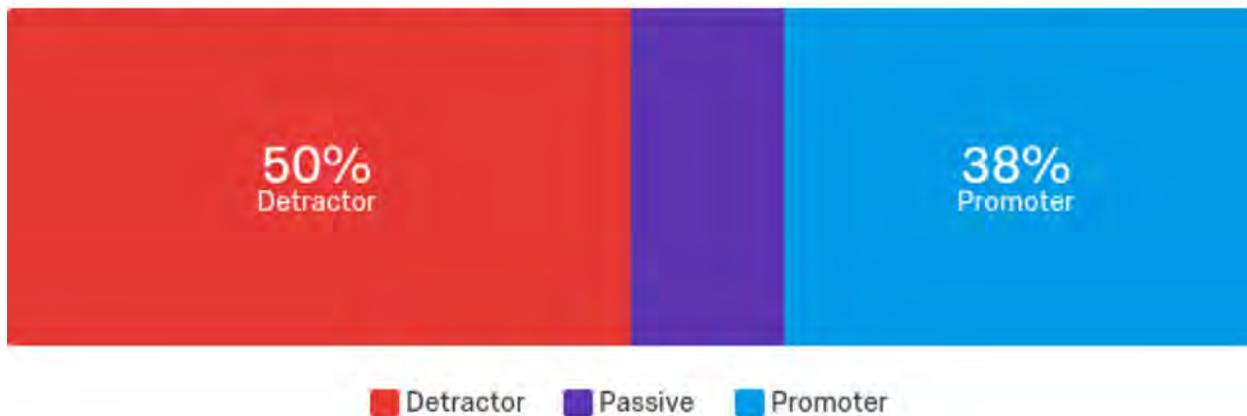I found this website to be attractive.

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Stanford - Observational Notes

- Undergraduates noted that the tabs and jargon used on this page were confusing and not helpful (database and eJournal, for example). Graduate users weren't sure where to start and seemed to want to go directly to a specific database.
- Graduate users noted that they wouldn't want to use a search that searches across everything -- they would rather locate a subject-specific database.
- Undergraduates seemed overwhelmed with results when asked to locate a peer-reviewed article within a certain date range and struggled to use filters. When asked to complete the same task, graduate users were looking for a list of subject specific databases or resources.
- Users were getting hung up on the 'Articles+' plus search option on the homepage when asked to locate a specific journal title. They were also overwhelmed with number of search results and couldn't easily narrow results.
- Users could not easily locate a librarian to help them with their research and noted frustration in having to manually look through a long list of people to identify a subject expert.
- Users commented on the mixed results when they were searching for a print book. However, most users were able to located and place a hold on a specific book title.
- Undergraduates noted that the design of the homepage was simple but they did not feel confident using it. Upper level users noted that the overall look was clean but the site was hard to navigate with almost too many options to choose from, and they were unsure of the search results.

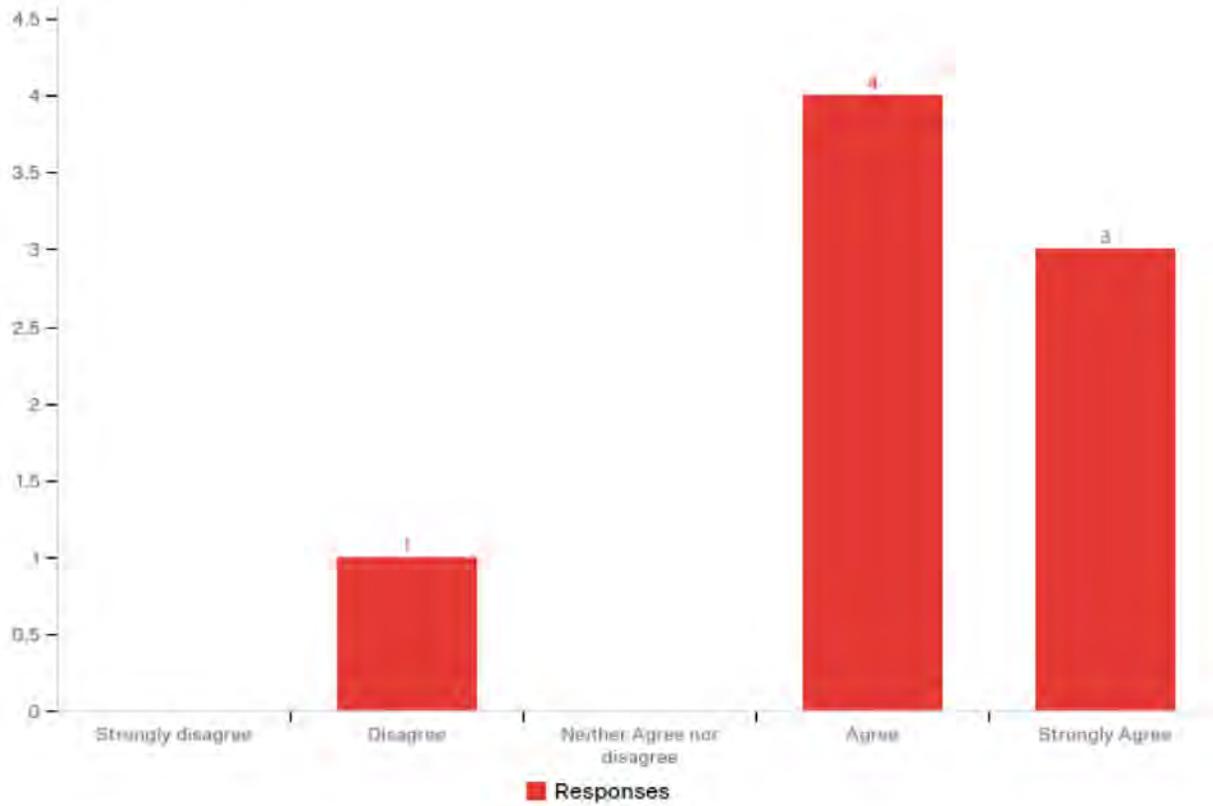# University of North Texas - SUPR-Q Results

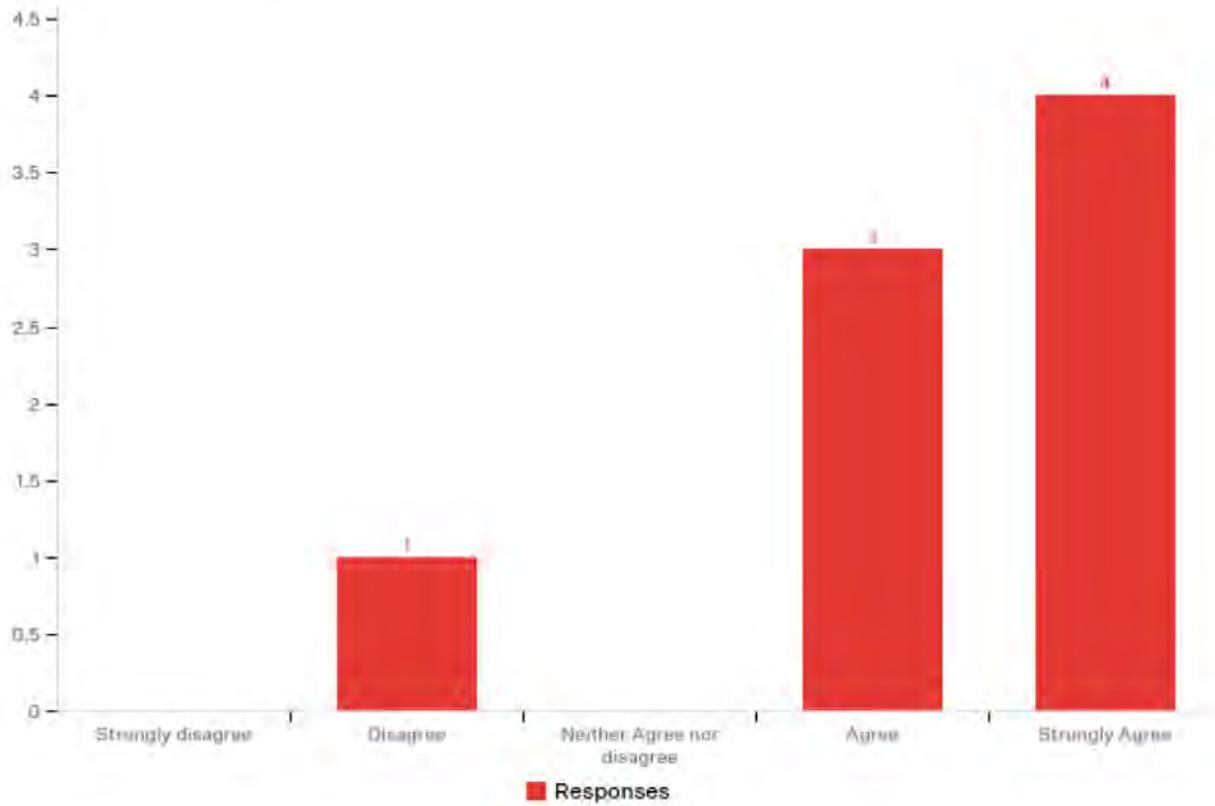This library website is credible.
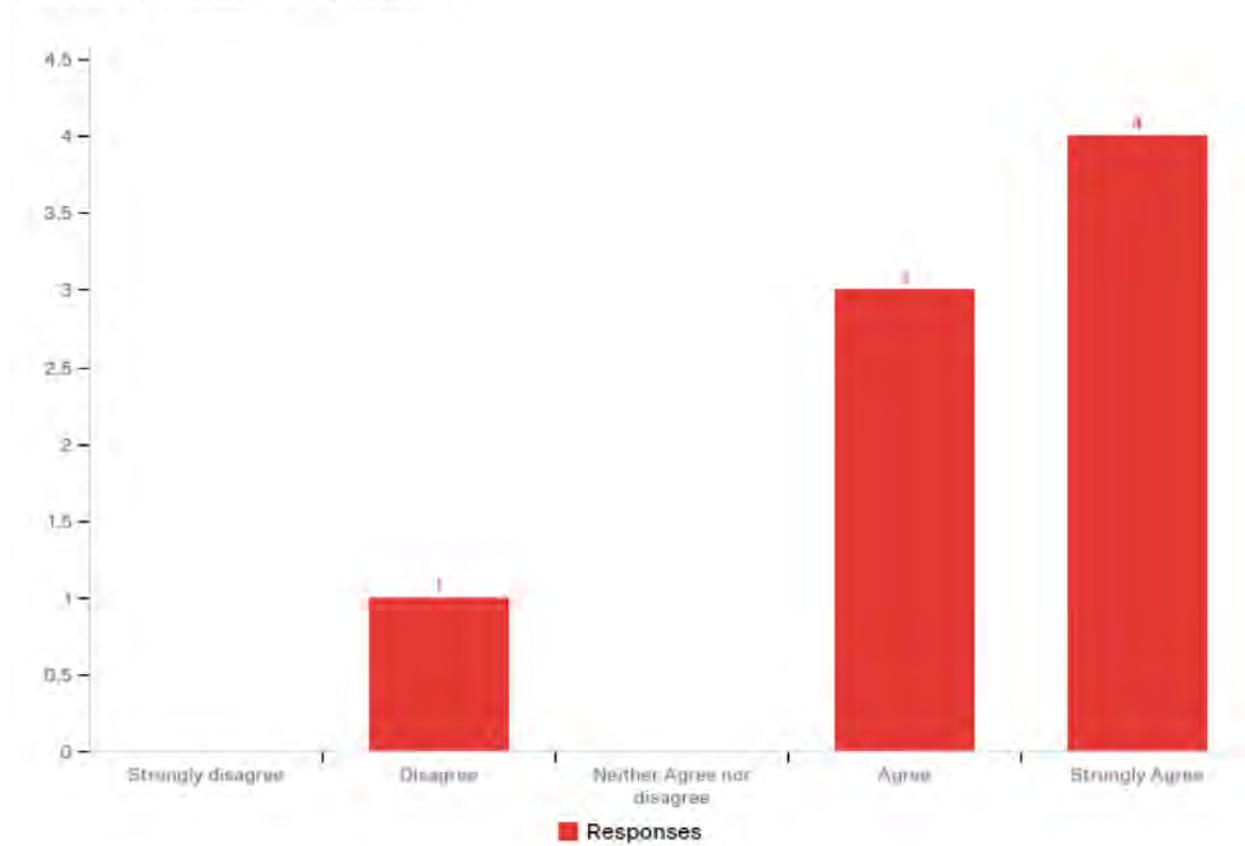
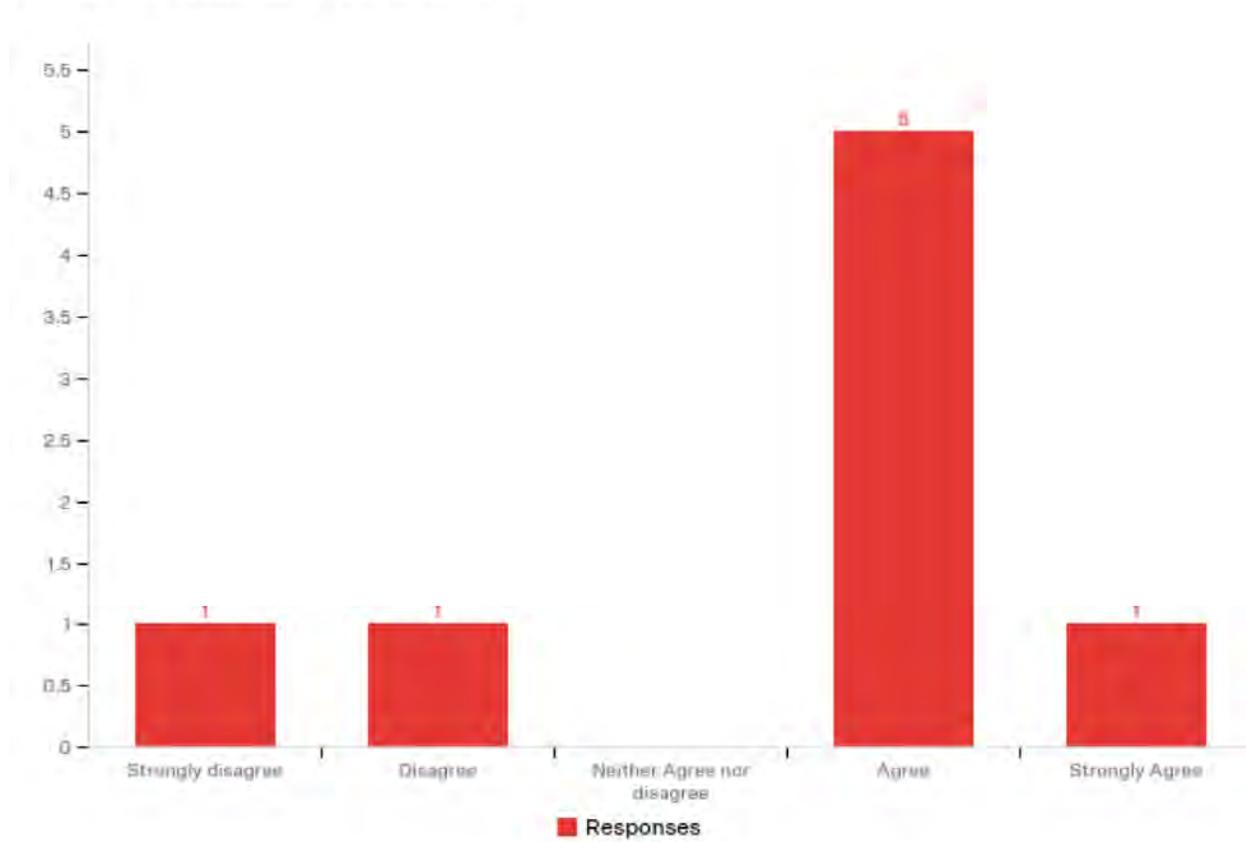This website has a clean and simple presentation.
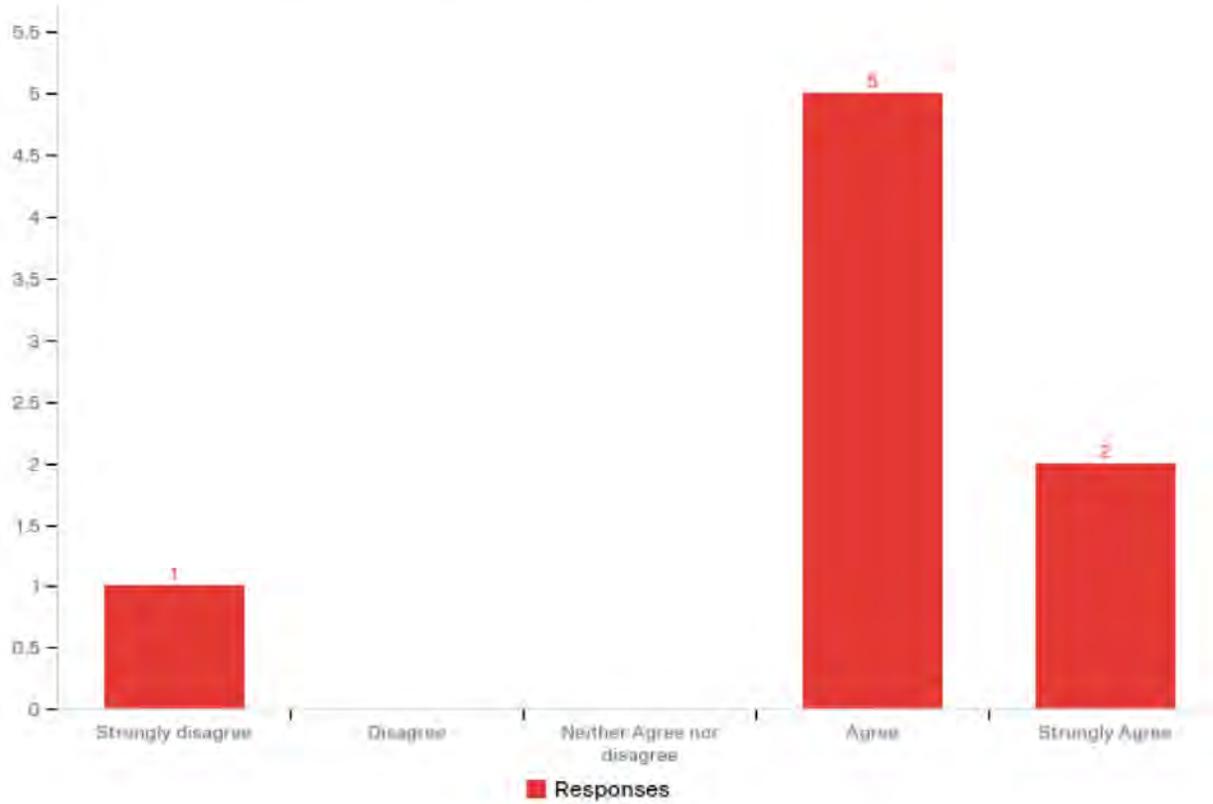
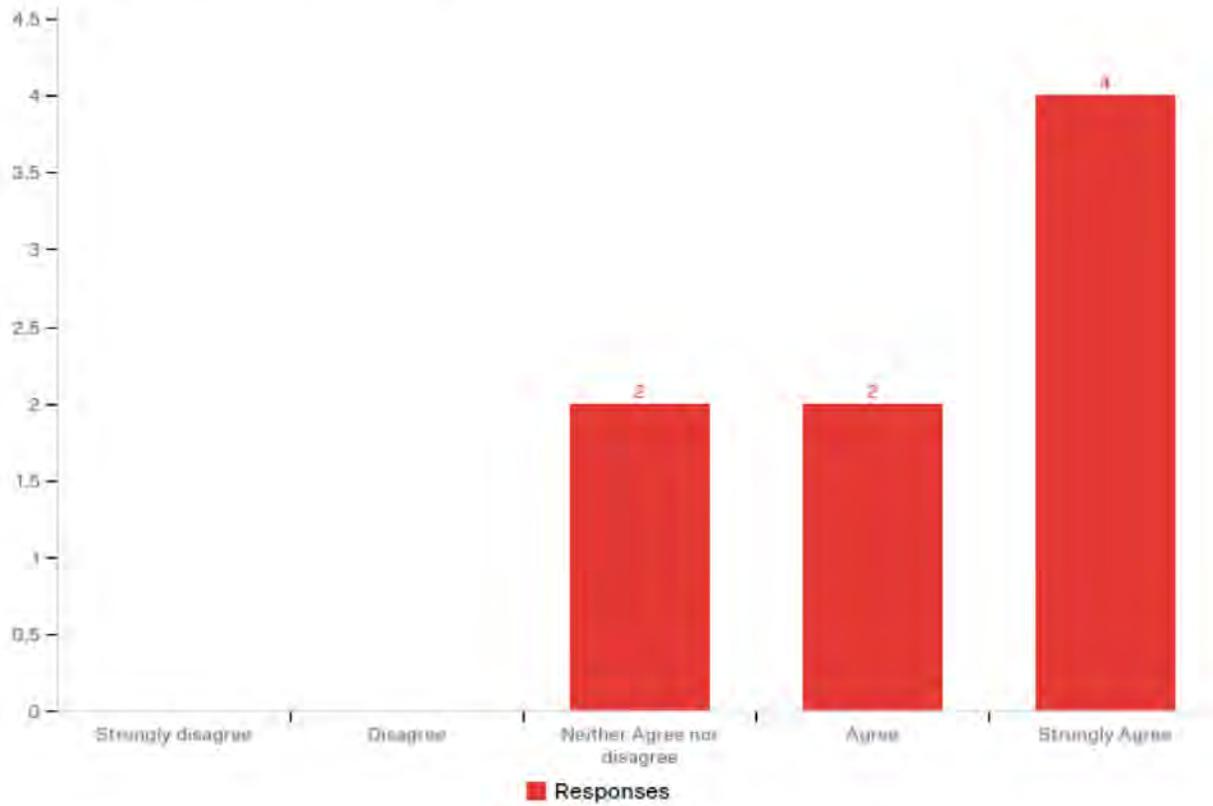This website is easy to use.

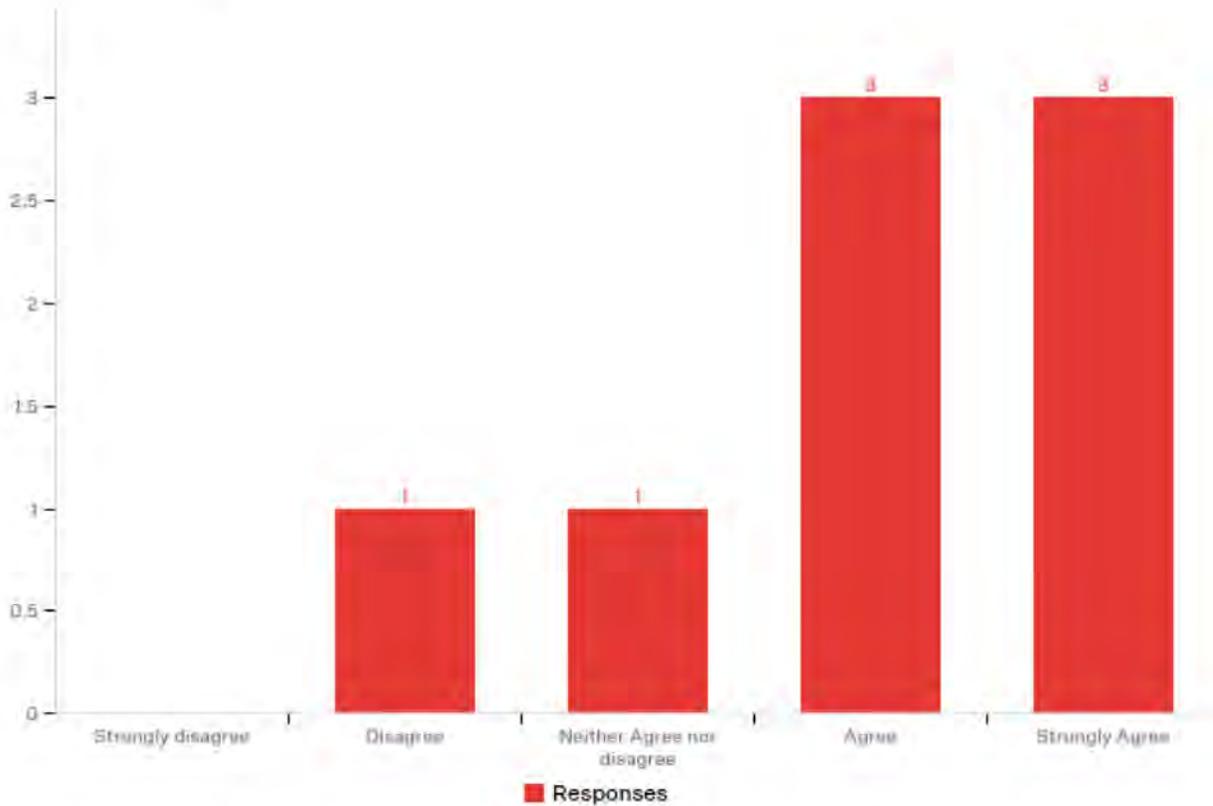I will likely visit this website in the future.

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On a scale from 0-10, how likely are you to recommend this site to a friend or classmate? 0-6 = detractor. 7-8 = Passive. 8-9 = Promoter.

University of North Texas - Observational Notes

- All users commented on specific options that are listed on the UNT homepage (eBooks, eJournals, etc.) but also noted not all the headings are helpful -- the users weren't sure, for example, what the difference between Online Articles and eJournals meant and described the tabs as ambiguous and unclear.
- A faculty member noted the front page was distracting, and they immediately wanted to scroll down the page to see what other information was on the homepage which took their focus away from the search.
- Most users seemed frustrated that they couldn't find an option to limit to peer review very easily.
- One undergraduate noted the they are a "big fan" of the bento display. Other users weren't sure how resources were being sorted (relevance, date, etc.) in the Summon interface.
- Most all users navigated to the eJournals tab option to start their search for a specific journal. Similar to other sites, users weren't confident that they located the correct journal title.
- Most users were able to locate a librarian by finding the 'Subject Librarians' link. Two undergraduate students took a bit longer to locate this and both navigated to an option called 'Research' before circling back to 'Services'.
- All users limited to the 'Books and More' tab from the homepage when asked to locate a specific book title. One user noted that even though they thought they were limited to books, they got other formats mixed into their search results which was frustrating.
- All users were able to find the 'Request for pickup' option to place a hold on an item in the catalog.
- Users described the extra "stuff" on the homepage as just more reading you have to do.
- They also noted they liked that this site required minimal clicks to access certain resources (databases, for example).
- The site, overall, is easy to navigate, and users liked that the library gave them options upfront such as a 'most requested' section and a 'not sure where to start' option.
- Users also noted the color scheme and design was not their favorite, and that the site lacked pictures.