Usability Report for MSU Library Web Site

Date of Report: February 2017
Date of Test: January/February 2017
Location of Test: Montana State University Library, Bozeman, MT

Prepared by: Scott Young, Digital Initiatives Librarian, with the Library Student Design Group: Celina Brownotter, Connie Brownotter, Alyssa Noseep, Noah Jackson

Summary

The aim of the usability test was to determine how we could improve our site by making it easier to use for undergraduate students. To understand usability problems, participants were asked to complete a series of eight tasks using the Library Web site. The sessions were conducted by the Digital Initiatives Librarian in the Dean's Conference Room utilizing a talk-aloud and observational process. Four undergraduate students participated in the sessions.

This usability report contains a summary of observations, a description of usability issues, and survey results and analysis. The findings and recommendations focus on the ease of use of the Library Web site, with suggestions for specific redesign of components of the Library Web site.

Methodology

Procedure

Participants (4) in the usability test completed eight tasks using the Library Web site. Tasks were specifically geared toward the user's status as an undergraduate student. After these tasks, participants completed a survey to measure usability, appearance, loyalty, and trust using the SUPR-Q scale,[1] and to measure emotional response using the SAM scale.[2] Qualtrics powered the data collection and analysis.

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

[2] Bradley MM, Lang PJ. 1994. Measuring emotion: the Self-Assessment Manikin and the Semantic Differential. J Behav Ther Exp Psychiatry 25:49–59; Bruun, A. and Ahm, S. (2015), "Mind the Gap! Comparing Retrospective and Concurrent Ratings of Emotion in User Experience Evaluation", in Abascal, J., Barbosa, S., Fetter, M., Gross, T., Palanque, P. and Winckler, M. (Eds.), Human-Computer Interaction – INTERACT 2015, Springer International Publishing, pp. 237–254.

Data collection

Observational notes were recorded during the sessions. From this, we were able to determine paths selected, task completion rates, verbal feedback, and general comments. The SUPR-Q survey collected trust, loyalty, appearance, and usability data, along with the Net Promoter Score. The SAM scale collected emotional response data.

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Major findings and recommendations

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Findings

1. CatSearch frequently caused more confusion than clarity. Especially for students with less Library website familiarity and experience, CatSearch misleadingly appeared to be an all-in-one tool, and was used to discover articles, journals, and library web pages. Consequently, a combination of unexpected results and a cluttered results interface led to task failure.
2. The default login page for Library services such as ILL cause initial confusion.
3. Students did not always navigate to the easiest starting point from the home page, and often returned repeatedly to *Find*, *Request*, and *Services*. This is partly due to site organization and partly due to library jargon, such as database, journal, article, online availability, and physical space availability.
4. Students experienced confusion navigating the *Journals by Title* results interface.
5. Less experienced users communicated feelings of uncertainty and unease when confronting unfamiliar interfaces and terminology.
6. Survey results indicated a poor Net Promoter Score, with aesthetics, navigation, and trustworthiness scoring unfavorably.

Recommendations

1. CatSearch
   a. Redesign homepage search box to more clearly communicate CatSearch index.
   b. Expand CatSearch index
   c. Refine default CatSearch results interface, or develop a custom CatSearch results interface, e.g. Bento Box
2. Design new login pages and landing pages for ILL, Reserves, and Room Booking that provide context for the service.
3. Reorganize and revise the information architecture of site pages. This recommendation can be informed by a follow-up card sorting and tree testing exercises. Revised organization could more clearly reflect the library personas.
4. Review and redesign *Journals by Title* results interface.
5. Continue to replace library jargon with the nomenclature of users. Continue to refine and streamline library web interfaces.
6. Conduct follow-up studies to investigate factors related to Net Promoter Score.
   a. Aesthetics: CMS templating and multiple vendor interfaces reduces aesthetic autonomy.
   b. Navigation: continue to refine information architecture and navigational menus informed by card sorting and tree testing.
   c. Trustworthiness: ensure that web systems operate functionally and that staff are trained properly in the use of web services, especially chat.

Detailed findings and recommendations

Question 1 – Library Hours
What time does the Library close next Tuesday?

Number of participants	4
Percent successful	100%

Findings	Recommendations
Students easily found the hours link from the homepage. Once in the LibCal interface, participants demonstrated some difficulty parsing the calendar view.	Possibly reduce visual clutter of LibCal calendar view. Reduce repetitive hours displays and get the colors right.

Question 2 – Journals

You want to find a recent article in the journal "Science". Does the library provide access to this journal?

Number of participants	4
Percent successful	50%

Findings	Recommendations
Students showed confusion regarding the definition of a "journal." CatSearch queries for "science" or "journal science" were unsuccessful. Users then found the *Journals by Title* page, but struggled to confidently locate the correct page through the Serials Solutions interface.	Review and redesign the *Journals by Title* results interface, possible by utilizing the Serial Solutions API to develop a custom interface. Integrate journals into CatSearch

Question 3 – Circulation

You just checked out a DVD but have forgotten when it needs to be returned. How long can you keep a DVD checked out from the library?

Number of participants	4
Percent successful	25%

Findings	Recommendations
Students struggled to locate the *Borrow* page. One student found the *Borrow* page via site search from the sidenav after navigating to the *Request* page from the homepage. One student attempted a CatSearch query for "DVD checkout." Two students navigated the *Ask* page from the homepage, but neither	Integrate Library web pages into CatSearch. Ensure that FAQ content is comprehensive and accurate.

found a relevant FAQ. One student concluded that she would call the library.	

Question 4 – Articles and Research Databases
Which resources would be good starting points for research in your major?

Number of participants	4
Percent successful	100%

Findings	Recommendations
Two students selected the *Find* page and navigated to *Articles and Research Databases*, where one student selected "Academic Search Complete" from recommended databases and another selected relevant subject heading." One student selected the *Find* page and navigated to the *Guides* page. One student used CatSearch and was mostly successful navigating the results interface, but experienced some trouble differentiating among resource types (e.g. books and book reviews) and online/physical availability	Refine CatSearch results interface through minor language adjustments and/or a custom results interface. Refine key webpages with an eye towards library jargon and streamlined interfaces.

Question 5 – Books and Media
You want to check out the book, "Doing Things with Things." How can you find this book?

Number of participants	4
Percent successful	100%

Findings	Recommendations

Two students successfully used CatSearch from the homepage to locate the item and its location. These students first navigated to *Request* page before returning to homepage and initiating a CatSearch. Two other students navigated to the *Find* page and selected *Books and Media*, which also resulted in a successful task.	Retain *Books and Media* link on the *Find* page.

Question 6 – Requesting material

You want to read a book, "At Home in the Universe" by Stuart Kauffman, but the library doesn't own a copy. How is another way to get this book from the library?

Number of participants	4
Percent successful	75%

Findings	Recommendations
Two participants navigated from the homepage to *Request* and into the ILL interface via *Request It!*. One student was initially turned away by the login page that immediately follows the *Request It!* link. After returning to the homepage and initiating a CatSearch, the student returned to the login page and proceeded to ILL. Another student navigated to *Request* and found the *Purchase Request* form. Another student used CatSearch, and selected the "MT Academic Libraries" tab, where this book can be found from Carroll College. Student suggested logging into Primo and contacting Carroll College to retrieve the book.	Implement landing pages for services the require a login, including ILL, Reserves, and Room Booking. Revise Primo interface to clarify collections holdings through TRAILS consortium.

Question 7 – Ask a Librarian

You have started researching for a paper, and you want some help. How can you use the library website to ask for assistance from a librarian?

Number of participants	4
Percent successful	100%

Findings	Recommendations
Each student found unique success with this task. One student navigated to the Services page, and selected *Research and Instruction Services* after noticing "meet with a librarian" in the description. One student initiated a chat from the homepage. One student navigated to a relevant Guide and selected the "Email Me" button that appears beneath the librarian image. This student first navigated to *Services*, then *Request*, the *Find* before locating the Guides link. One student located the "Ask the Library" button from the homepage, and finds a "research help" link on the *Ask* page.	Possibly expand chat so that the service appears on more pages.

Question 8 – Articles and Research Databases

You are writing a paper on music history. How would you find research articles that would be helpful for writing your paper?

Number of participants	4
Percent successful	100%

Findings	Recommendations
One student initiated a CatSearch, but was turned away by the interface and instead selected the Guides link at the top of the page, whereupon the student found a relevant Guide and a relevant database. One student Navigated from *Find* to *Articles and Research Databases* and selected "By Subject," but returned to the homepage when the headings on the music guides were perceived to be unclear. Then initiated a successful CatSearch that led to a JSTOR article. One student easily navigated to a music guide. One student navigated to the Ask page, selected the "Research Consultation" link, and successfully located the music subject liaison.	Refine CatSearch results interface through minor language adjustments and/or custom results interface. Refine key webpages with an eye towards library jargon and streamlined interfaces.

Survey Results

SUPR-Q Results

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.
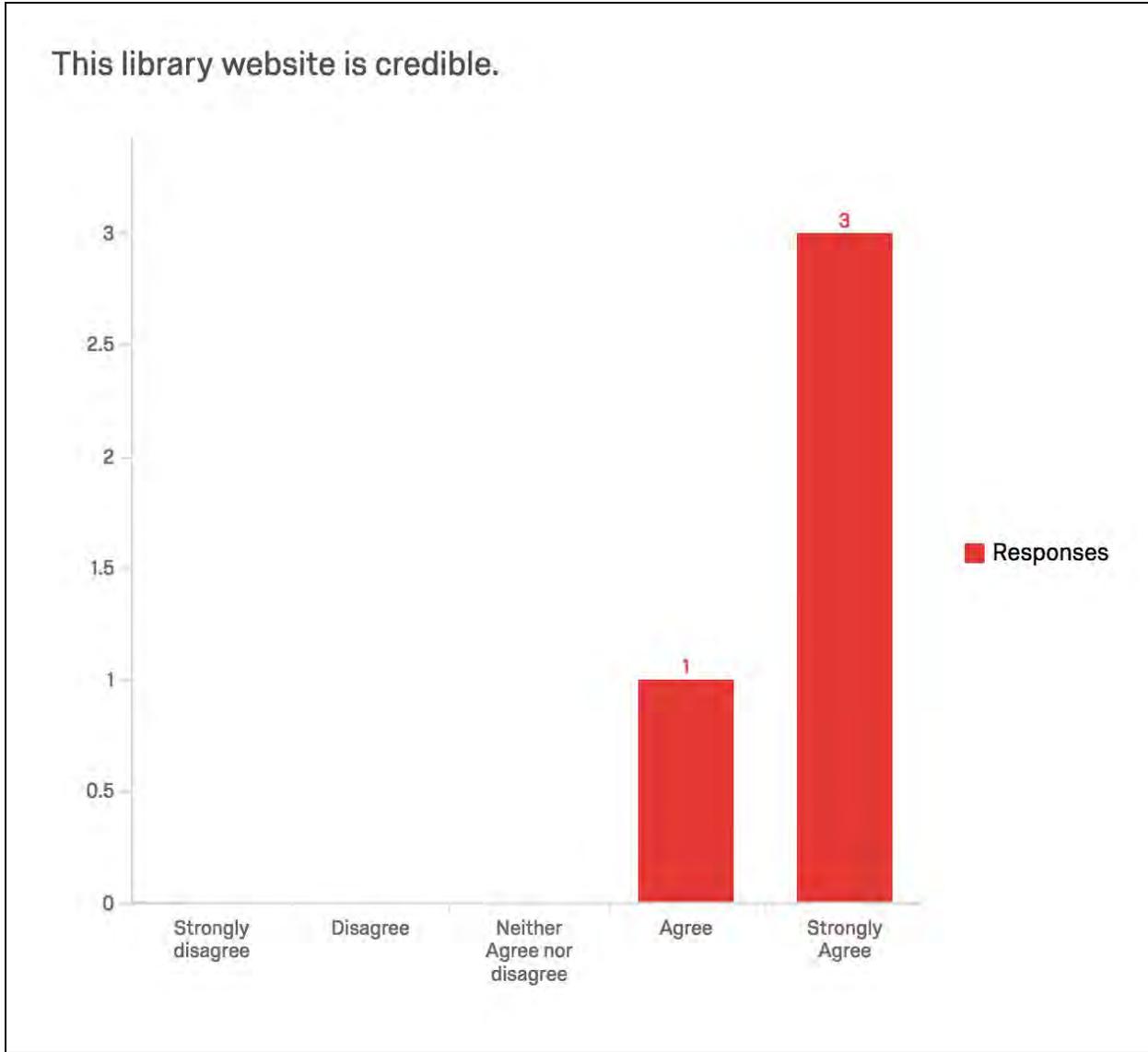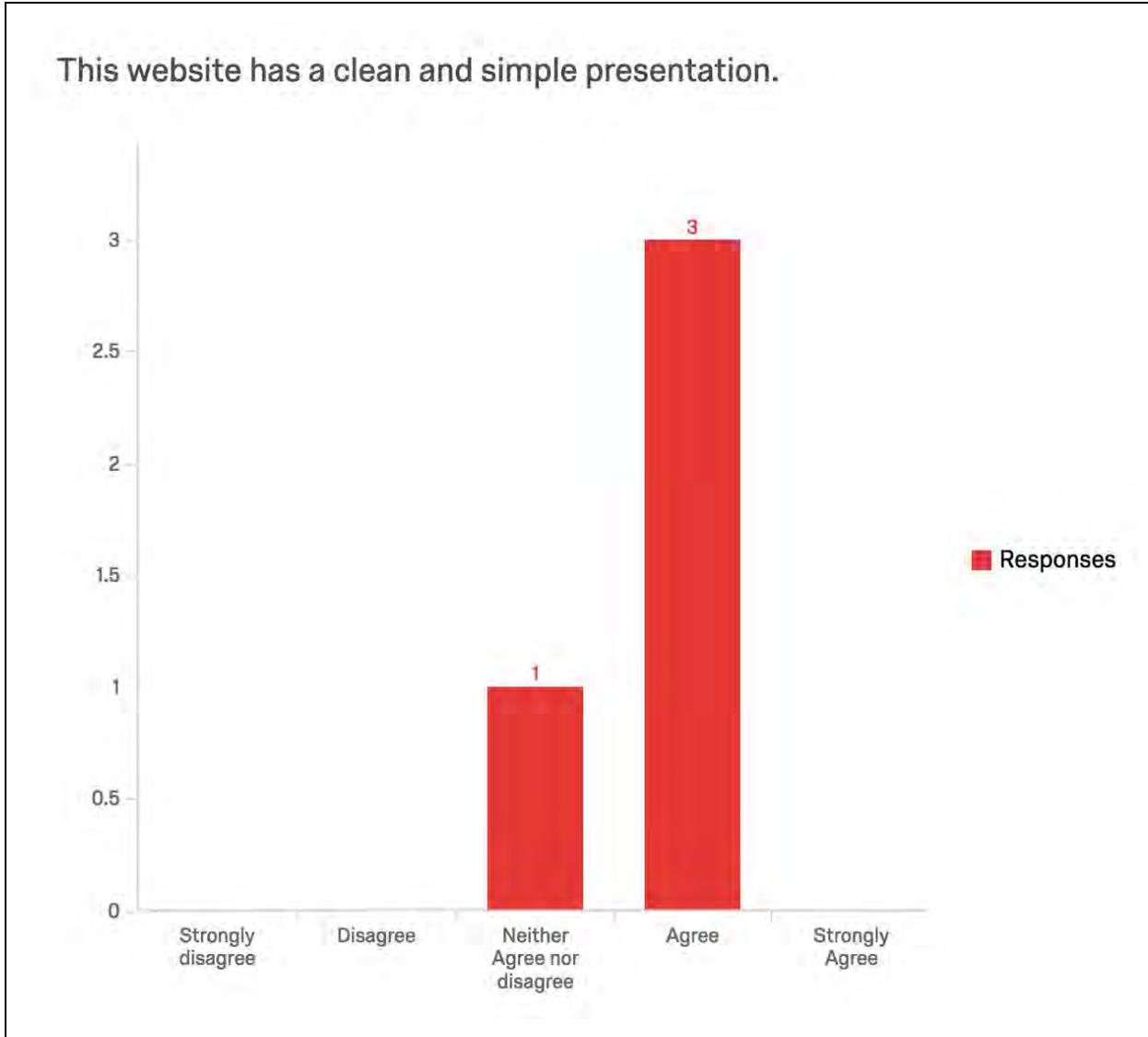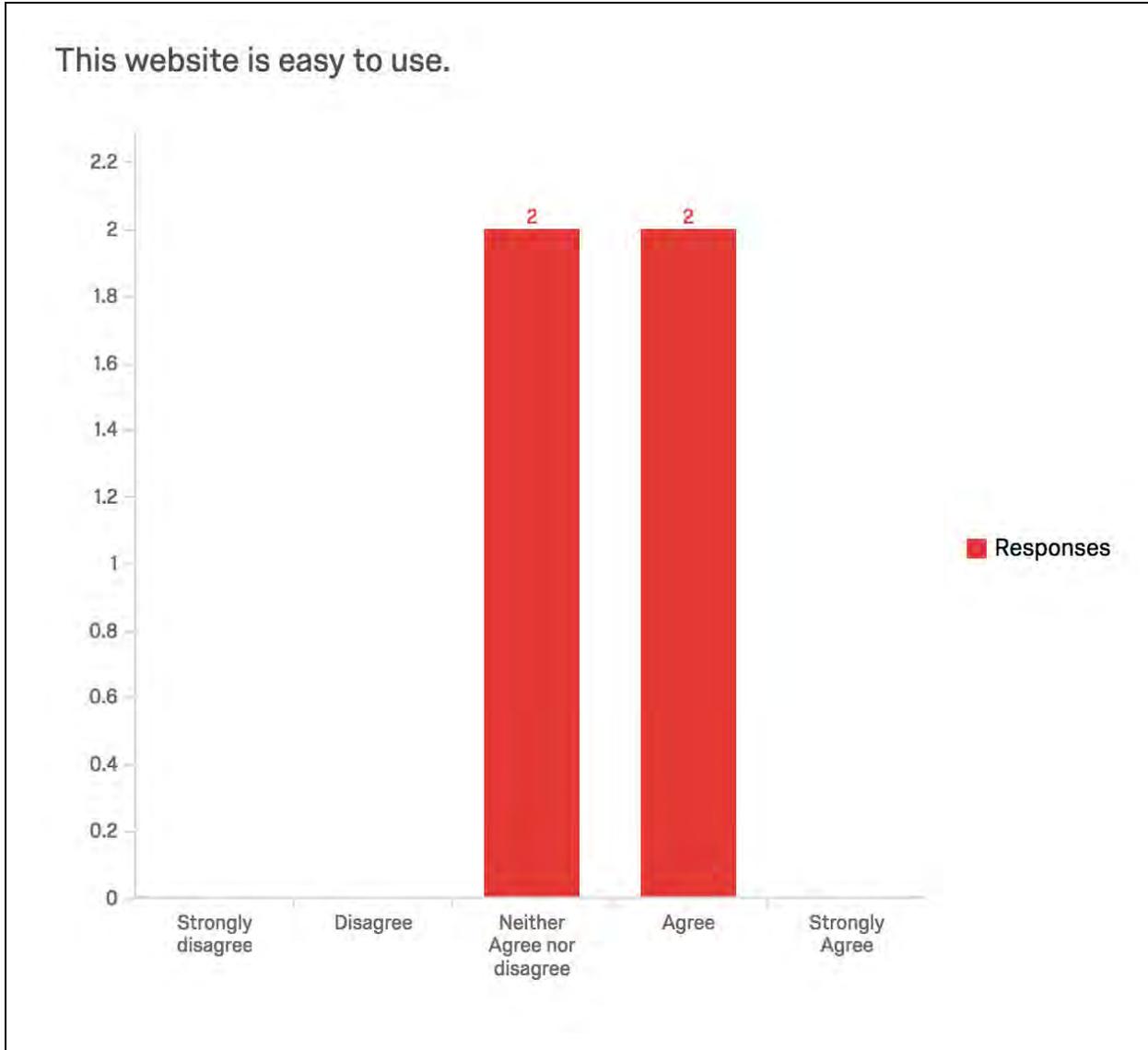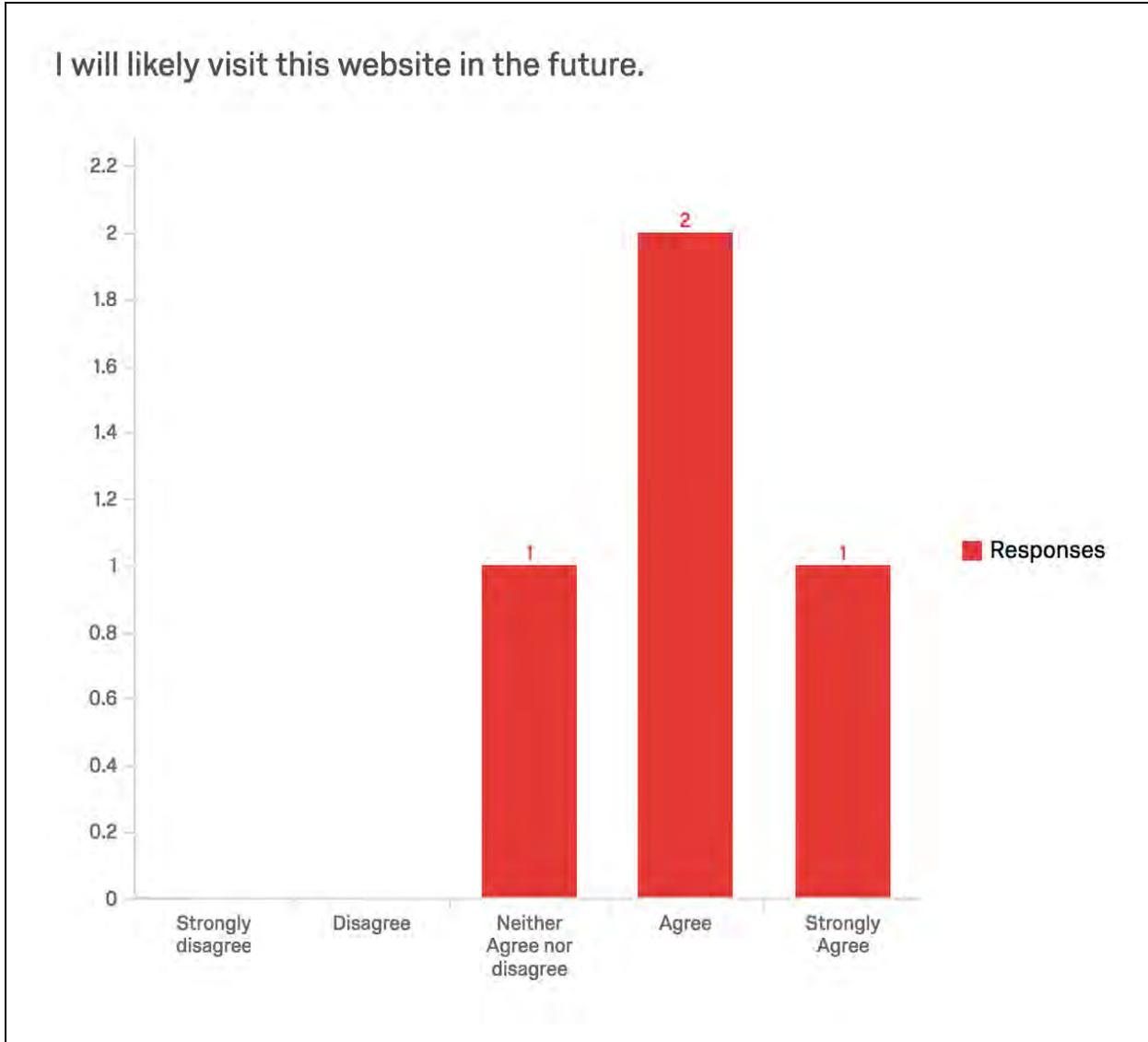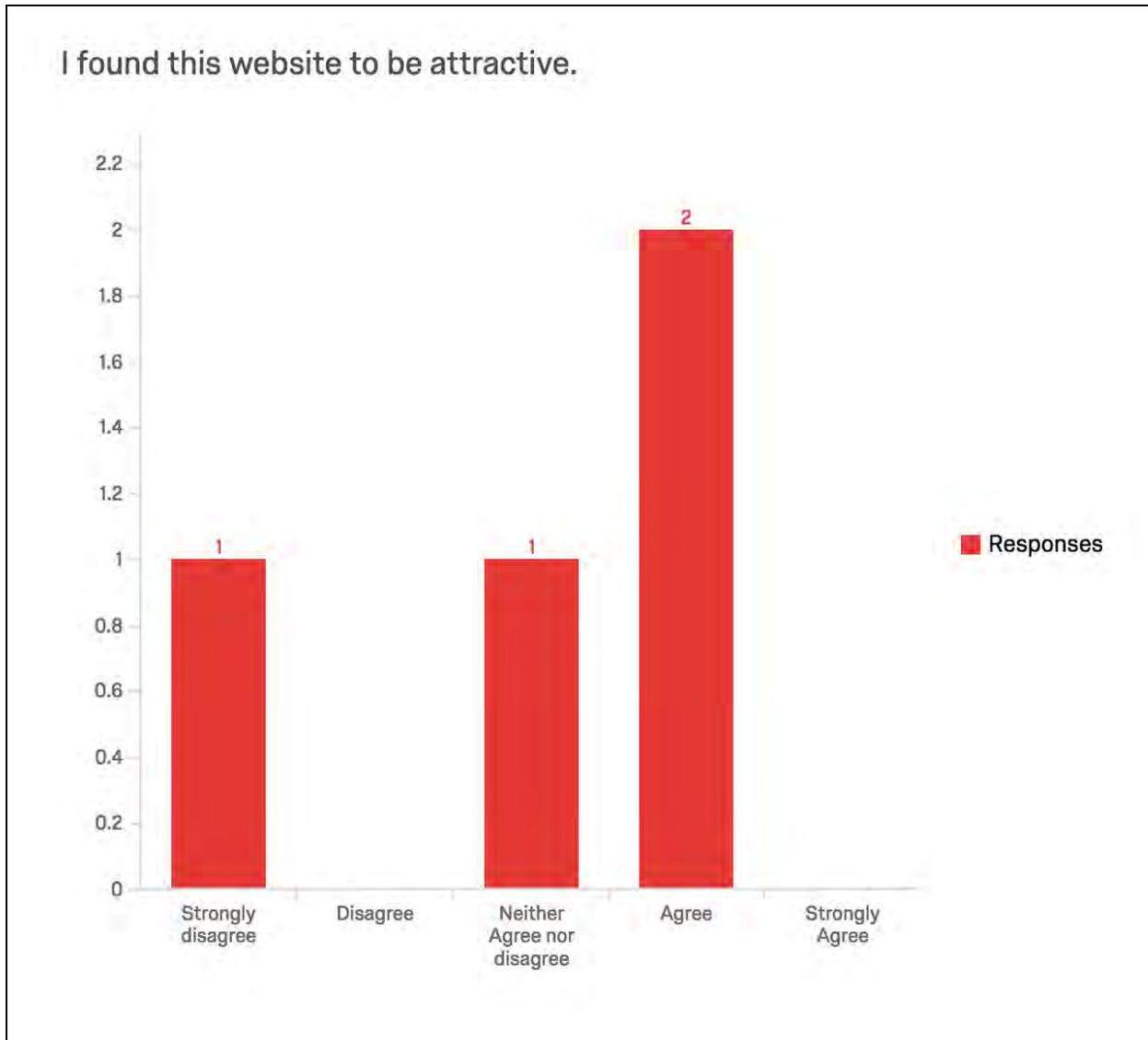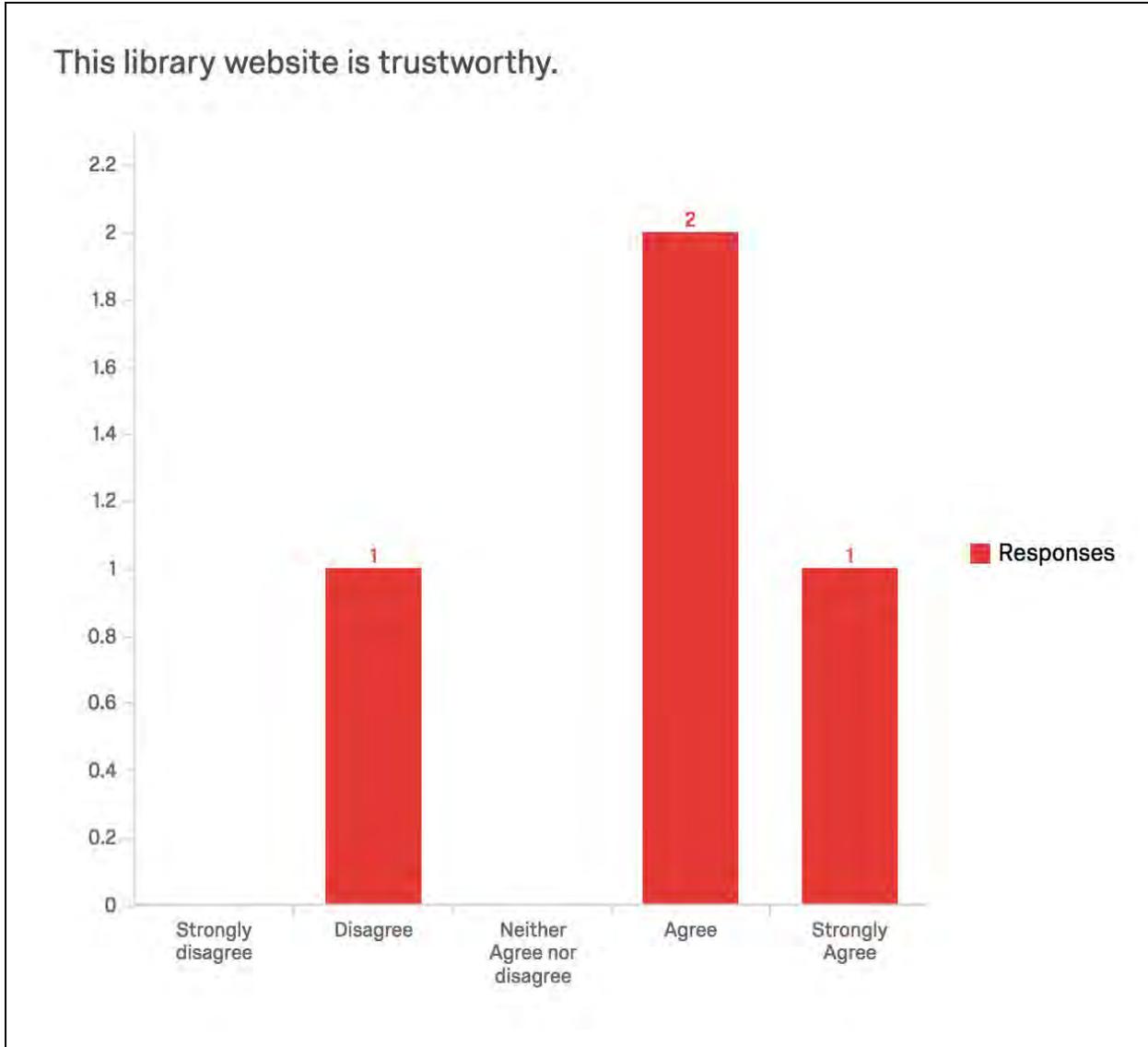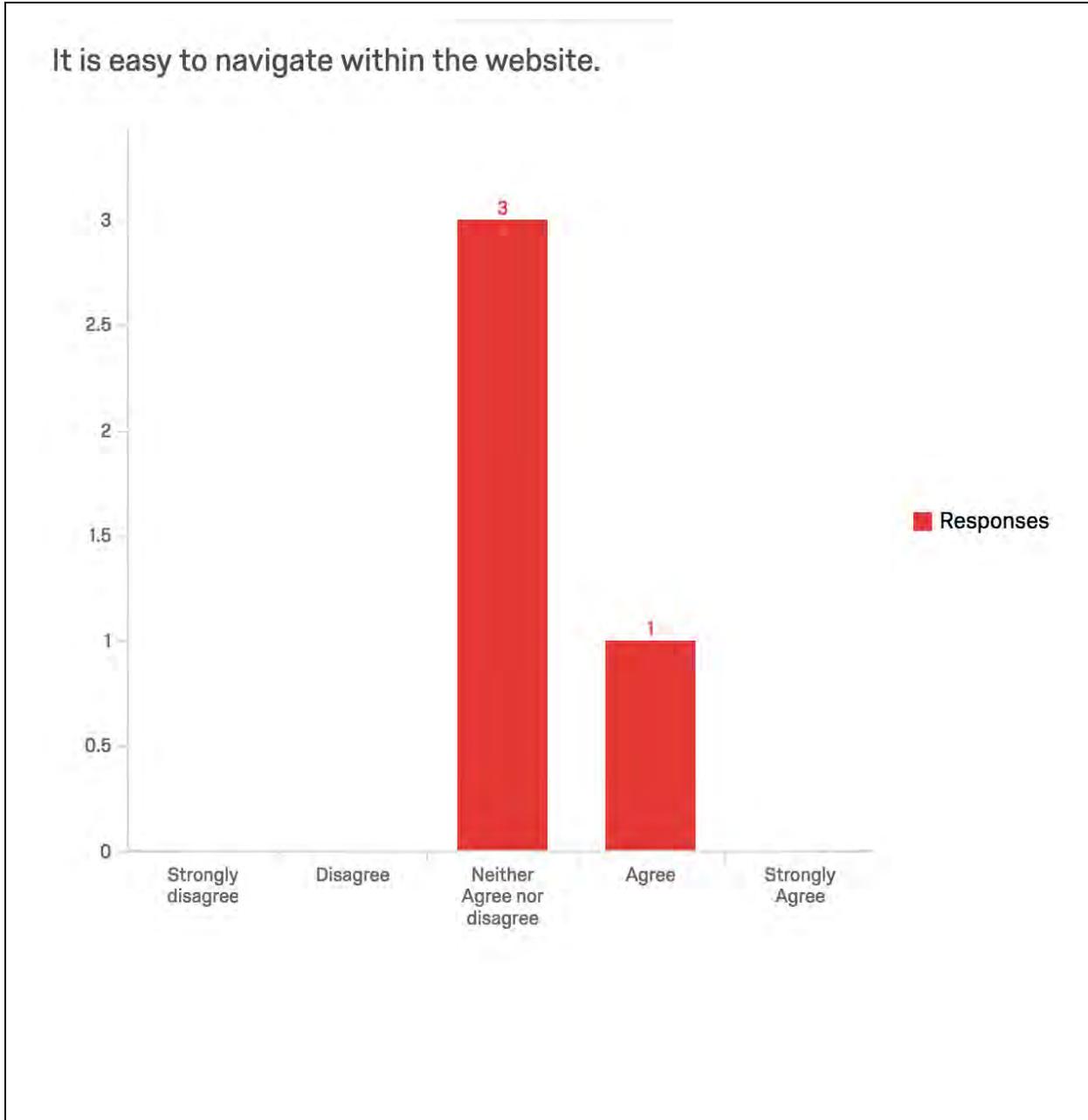
Net Promoter Score divides respondents into three categories based on the scale point they selected:

- Promoters (scale points 9 and 10): Promoters are your customers who are loyal and enthusiastic about your organization and will continue buying and referring others.
- Passives (scale points 7 and 8): Passives are generally satisfied customers, but lack the enthusiasm of Promoters. This group is vulnerable to competitive offerings and not immune to defection.
- Detractors (scale points 0 through 6): Detractors are often unhappy and can diminish your brand through negative word of mouth.

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SAM

Pleasantness: Based on the image below, please rate how pleasant you felt while completing tasks on this website from 1 (very unpleasant) to 9 (very pleasant).
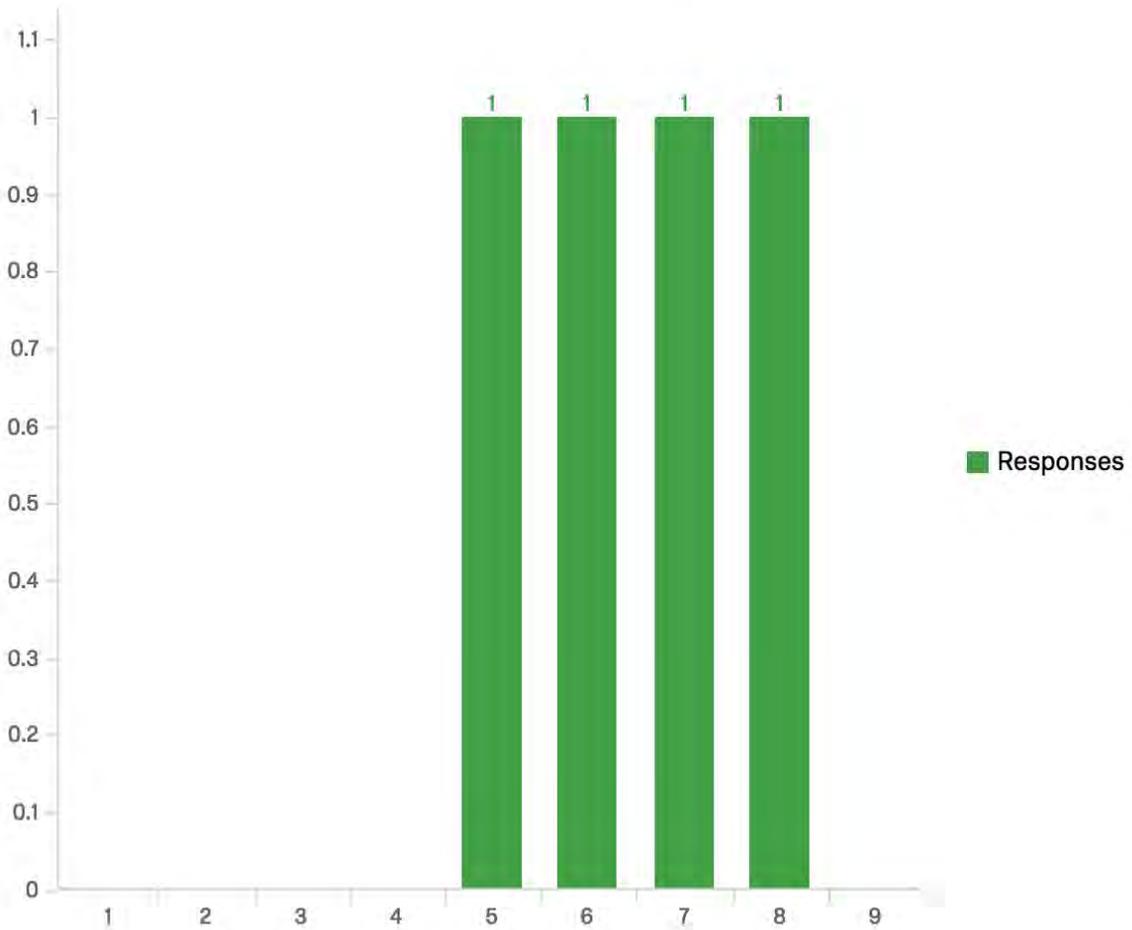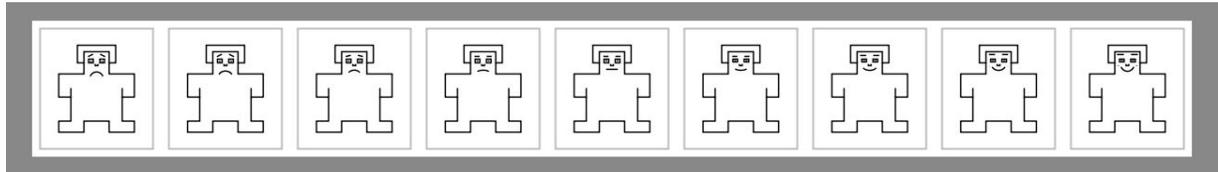
Frustration: Based on the image below, please rate how frustrated you felt while completing tasks on this website from 1 (no frustration) to 9 (very frustrated).
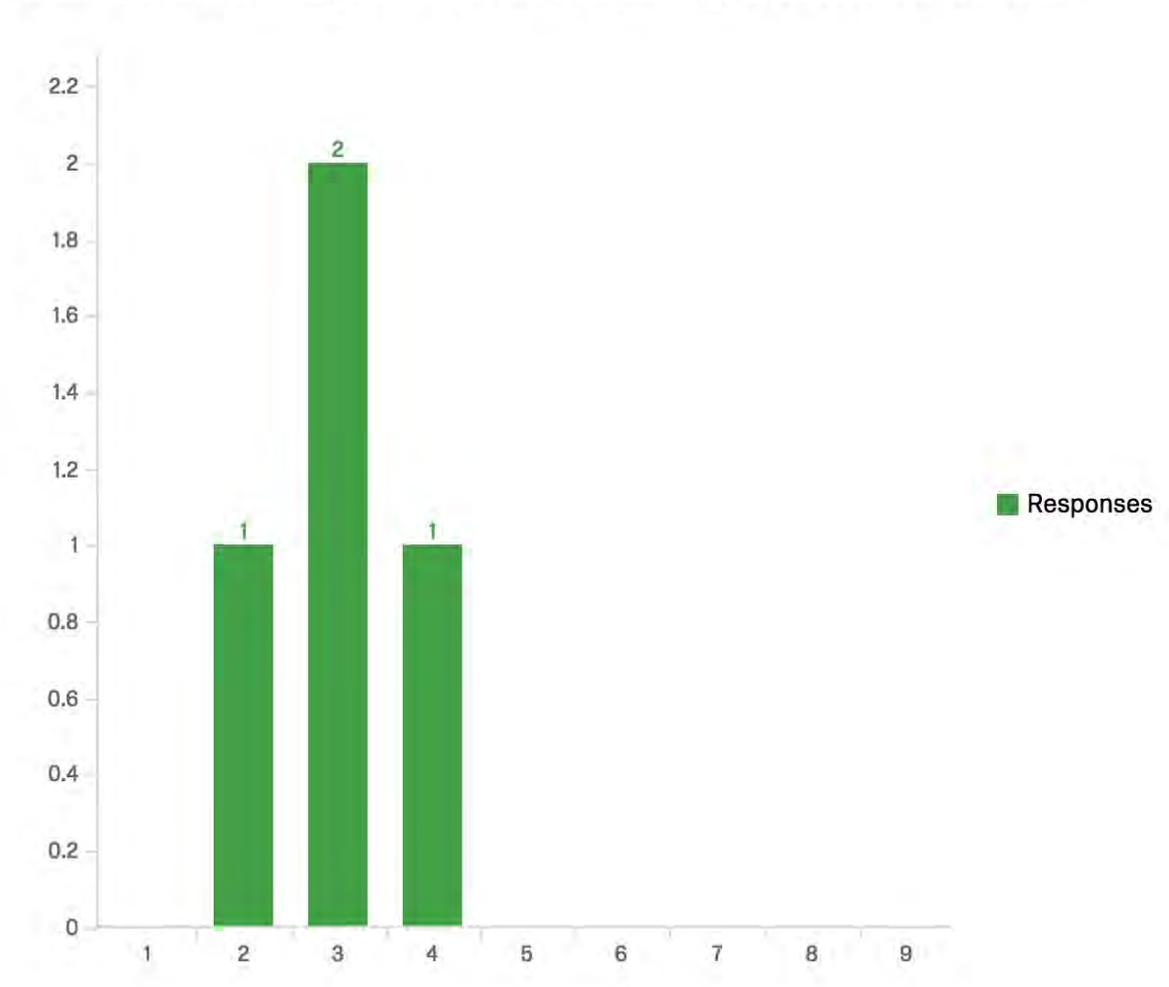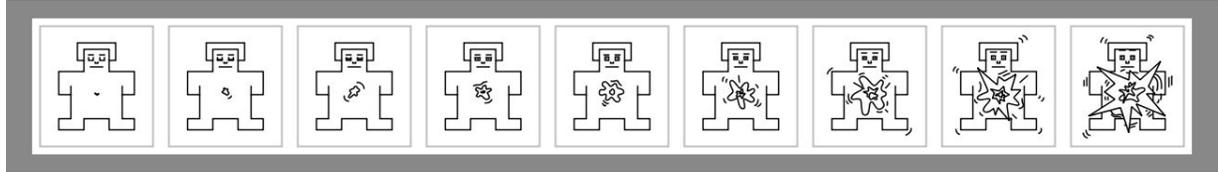
Control: Based on the image below, please rate how in control you felt while completing tasks on this website from 1 (not in control) to 9 (completely in control).