

# Understanding User Habits for the Improvement of Library Websites:

A Usability Case Study at the University of Toronto Scarborough

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## Using the library



**University of Toronto Scarborough Library**  
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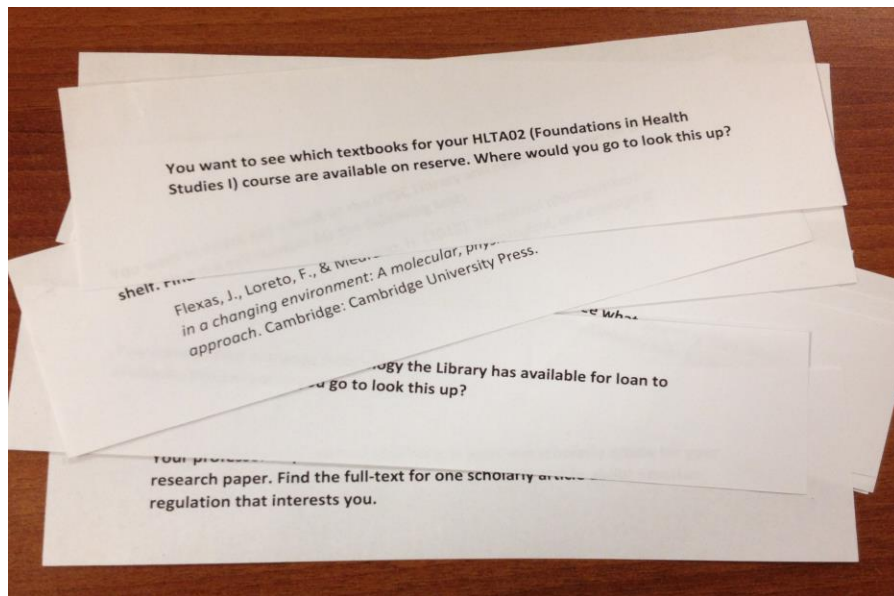
# Purpose

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- Goals for usability testing:
  1. **Make improvements** to the library website
  2. Gain a better understanding of **user behaviours**

# Usability Testing Methods

## 1. TASK SCENARIOS



## 2. CARD SORTING



# Planning

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<http://suitelife.com/blog/wp-content/uploads/2016/09/10502c0.jpg>

# Target Audience and User Tasks

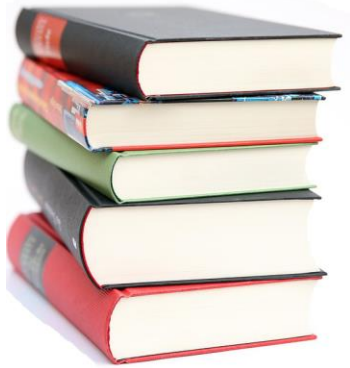
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- User profile
- What are our user needs?  
How are they using the website?
  - Library staff feedback
  - Reference statistics
  - Website analytics
  - Participant feedback



# Sample User Tasks

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QUESTIONS	
1-	A B C D
2-	A B C D
3-	A B C D
4-	A B C D
5-	A B C D
6-	A B C D



# Recruitment

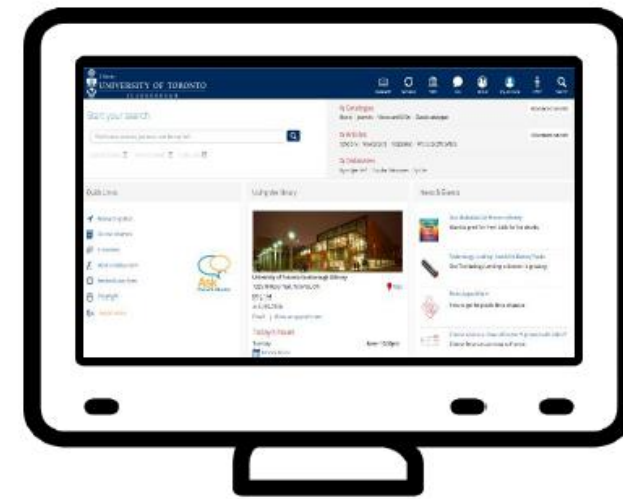
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- 20 undergraduate students:
  - 5 for Task Scenarios (Nielsen, 2012)
  - 15 for Card Sorting (Usability.gov, n.d.)
- Method: library flyers, social media, website posting
- Incentive: \$10 gift card
- Pre-screening survey

## HELP US IMPROVE OUR WEBSITE

Have an hour to spare?

Want to earn a \$10 T-Card gift card?





# Session Planning

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- ✓ Schedule participants
- ✓ Organize documentation
- ✓ Obtain incentives
- ✓ Testing space + signage
- ✓ Software/equipment
- ✓ Usability team
- ✓ Pilot testing

# Testing

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<http://3.bp.blogspot.com/-deJ-20VTCt0/Ulk6fUiZZ8I/AAAAAAAAAI/fQ9kItYqw2c/s1600/usability.png>

# Task Scenarios

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# Facilitator Script

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- Instructions for the activity
- Time commitment for participant
- Purpose of the testing
- Participant cannot do anything wrong!
- Be honest – we won't be offended!
- Encourage 'Think Aloud' as they complete tasks
- Can't guide them, but are available to answer questions



(Blakiston, 2015)

# Pre-Test Questionnaire

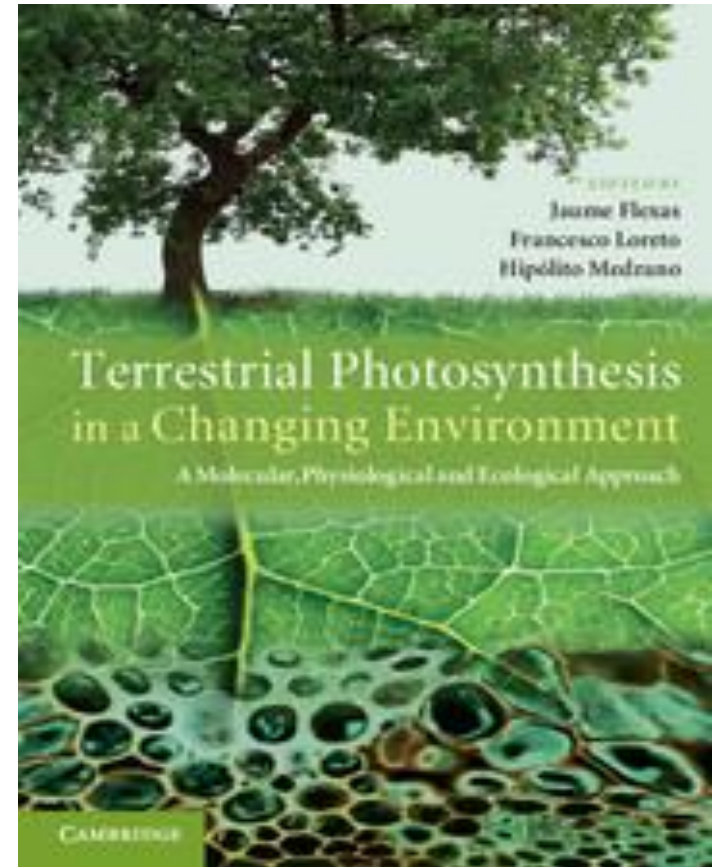
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- Before receiving any tasks, participants were asked to complete a user background survey with the following questions:
  1. Please take a moment to look over the library homepage. What are your general impressions of the website?
  2. Have you ever used the library website before, and if so, what have you used it for?
  3. Have you ever had any positive or negative experiences with the library website?

# Task Scenarios

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- Sample task:
  - Find a book
- Sample scenario:
  - Look up the call number for the “Terrestrial photosynthesis in a changing environment”
- Sample success criteria:
  - Find the call number QH541.15 .E26 T47 2012



## UTSC Library Website Usability

### Observation Form

Date: \_\_\_\_\_

Session/Participant #: \_\_\_\_\_

*Interview Questions:*

**Scenario:** You want to check out a book at the UTSC Library and need its location on the shelf. Find the call number for the following text:

Flexas, J., Loreto, F., & Medrano, H. (2012). *Terrestrial photosynthesis in a changing environment: A molecular, physiological, and ecological approach*. Cambridge: Cambridge University Press.

Attempt 1:

Attempt 2:

Attempt 3:

Success?    Yes        No

*Time on Task:* \_\_\_\_\_

Comments:

Takeaways/Lessons Learned:

# Post-Task Questionnaire

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Please rate your level of agreement on the following:

**I was able to accurately predict where to go to find this information from the homepage.**

Strongly Disagree    1    2    3    4    5   Strongly Agree

**As I was searching for this information, I was able to keep track of where I was in the website.**

Strongly Disagree    1    2    3    4    5   Strongly Agree

**I was successful in finding the information I was looking for.**

Strongly Disagree    1    2    3    4    5   Strongly Agree



# Post-Test Questionnaire

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**How easily you could find the Library resources that you were looking for?**

Not at all Satisfied                  Very Satisfied  
1   2   3   4   5

**How quickly you could find the Library resources that you were looking for?**

Not at all Satisfied                  Very Satisfied  
1   2   3   4   5

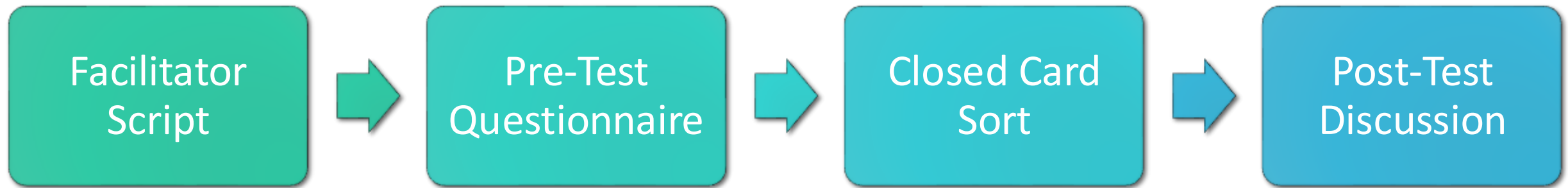
**Overall, how satisfied are you with your experience while using the website?**

Not at all Satisfied                  Very Satisfied  
1   2   3   4   5

**Did the scenarios and associated tasks match what you would typically use the Library website for?**

# Card Sorting

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# Card Sorting

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**Technology  
Lending**

(front)

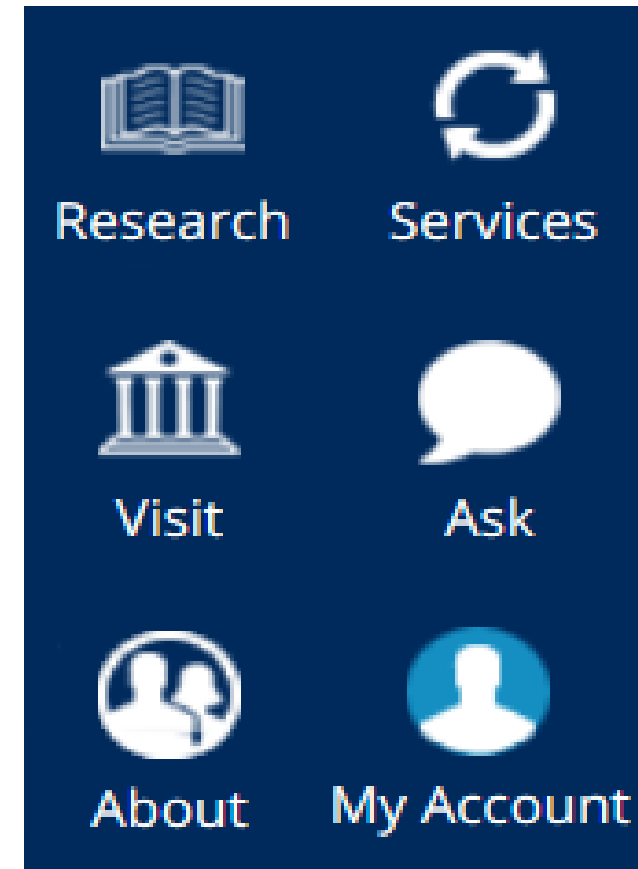
A list of technology  
items available for  
loan at the UTSC  
Library

(back)

# Card Sorting

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- Instructions:
  - Duplicate cards allowed
  - Can create their own categories
  - Can use “unsortable” category
- Participants received copy of instructions
- “Think Aloud” encouraged



# Post-Test Discussion

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- Observation form:
  - Any easy cards? Hard cards?
  - Any cards you felt conflicted on?
  - Inclusion in more than one category? Any added categories?
  - How would you “label” cards in this category?
  - Would you change any pre-defined labels for categories?
- Later sessions: discussion around “problematic” cards

# Results & Analysis

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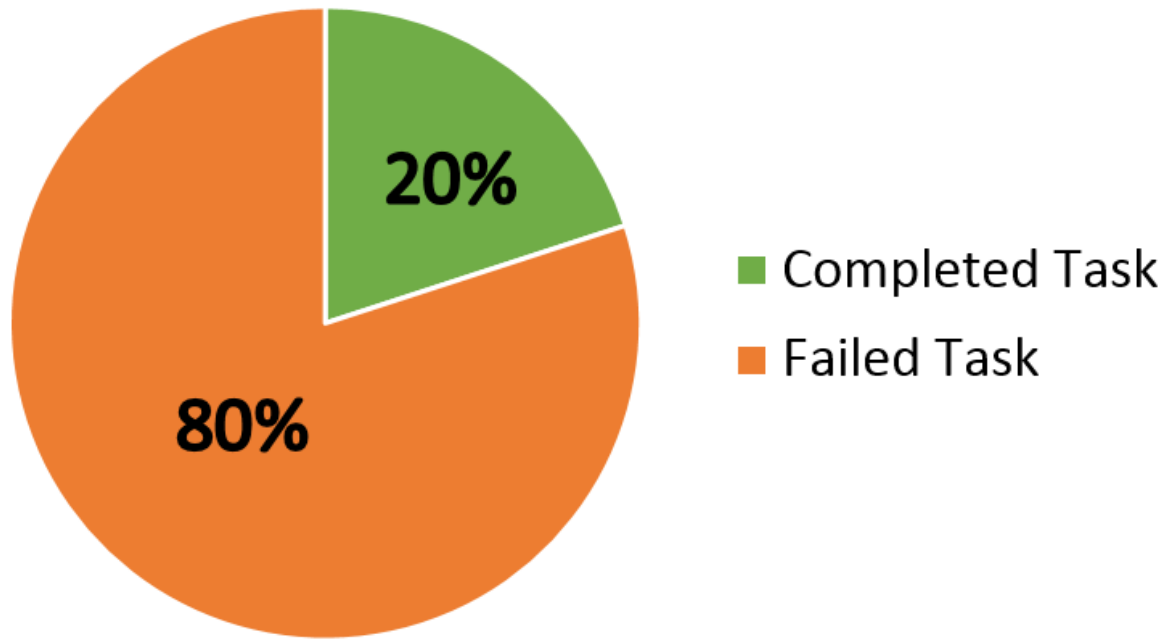


<http://blog.capterra.com/wp-content/uploads/2013/05/7-benefits-grant-management.jpg>

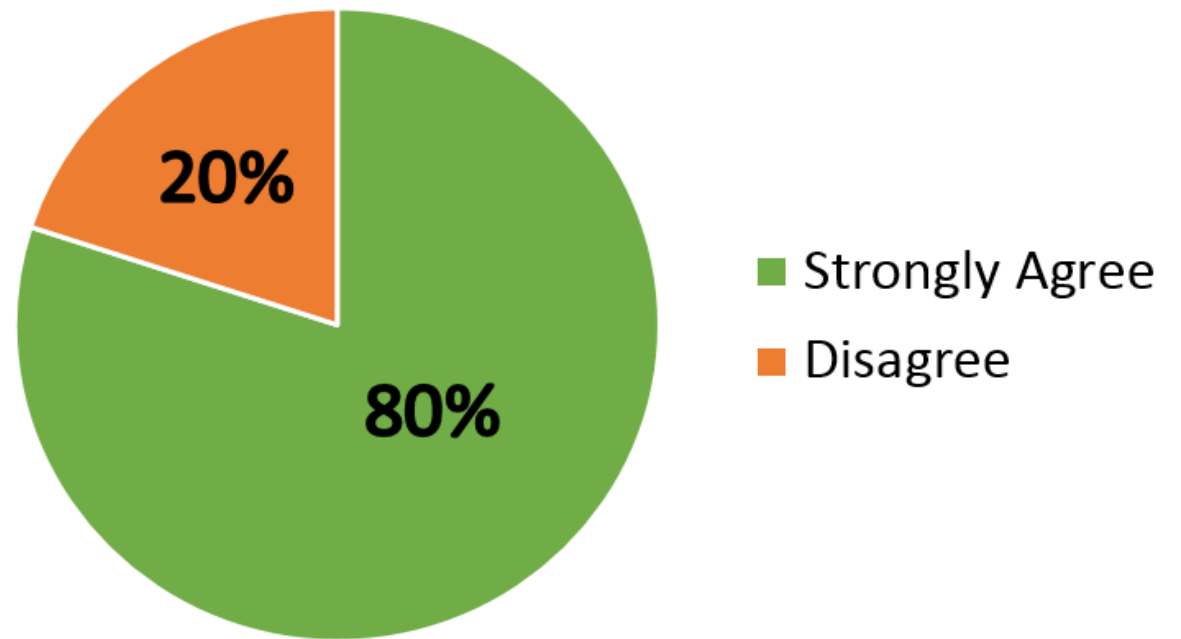
# Task Scenarios

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## Success on Database Task



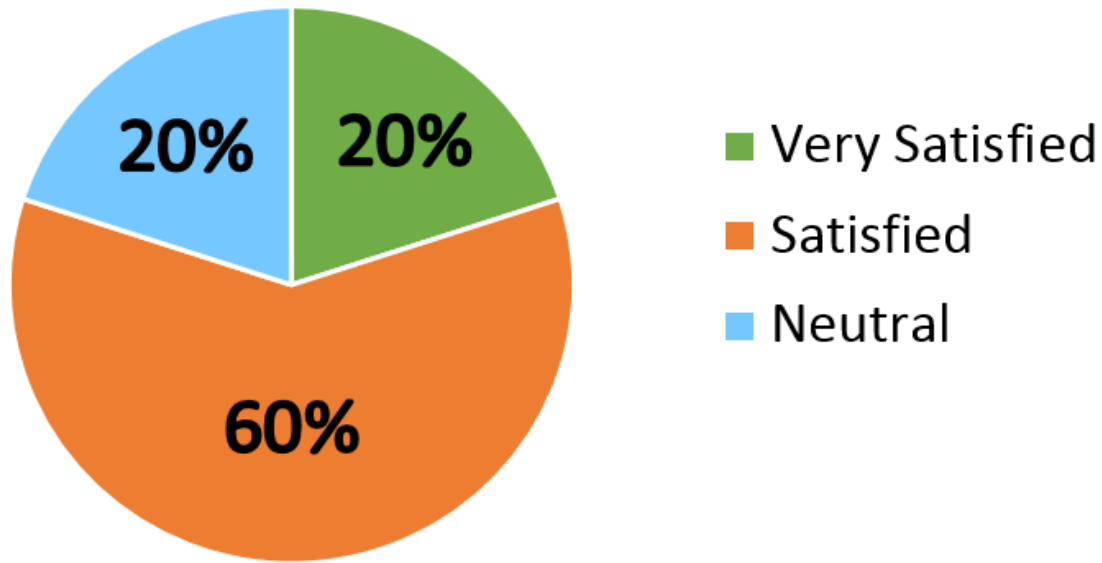
## Self-Reported Success on Database Task



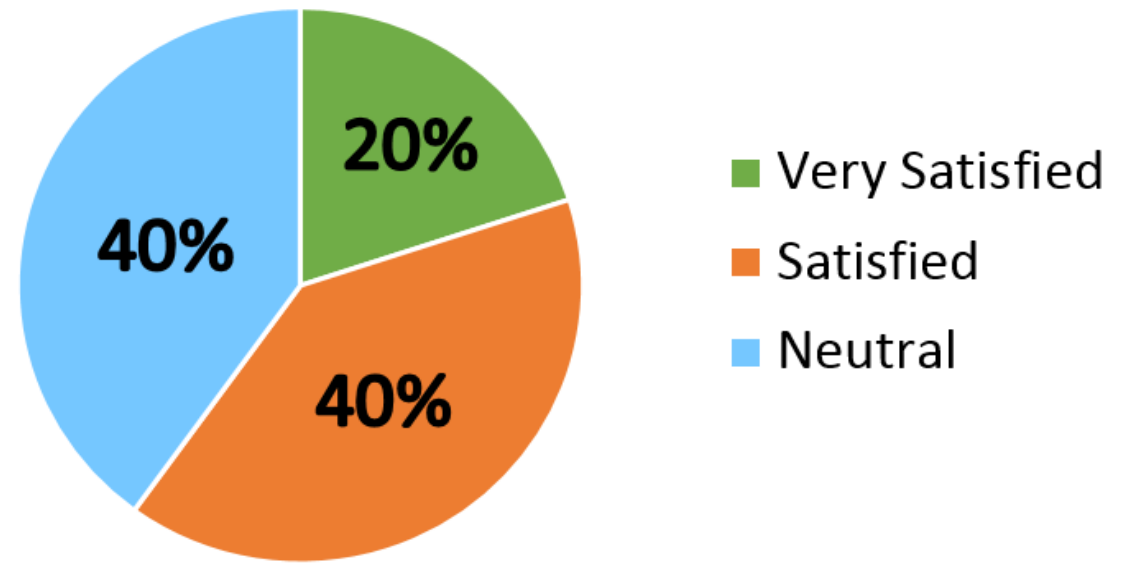
# Task Scenarios

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### Satisfaction with Ease of Finding Library Resources



### Satisfaction with Speed of Finding Library Resources

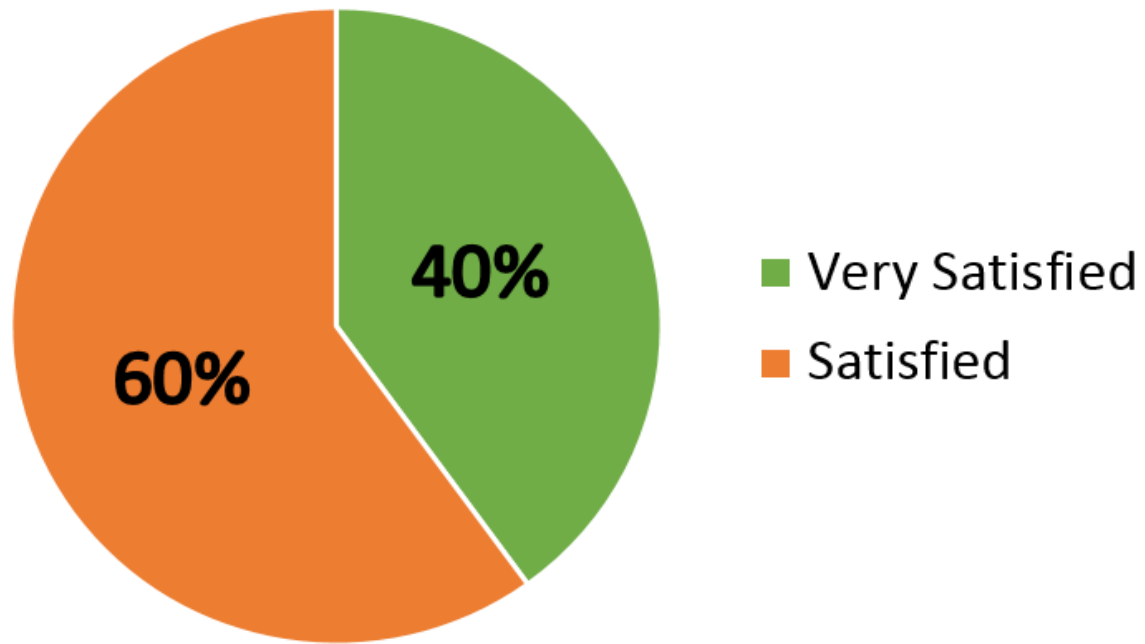




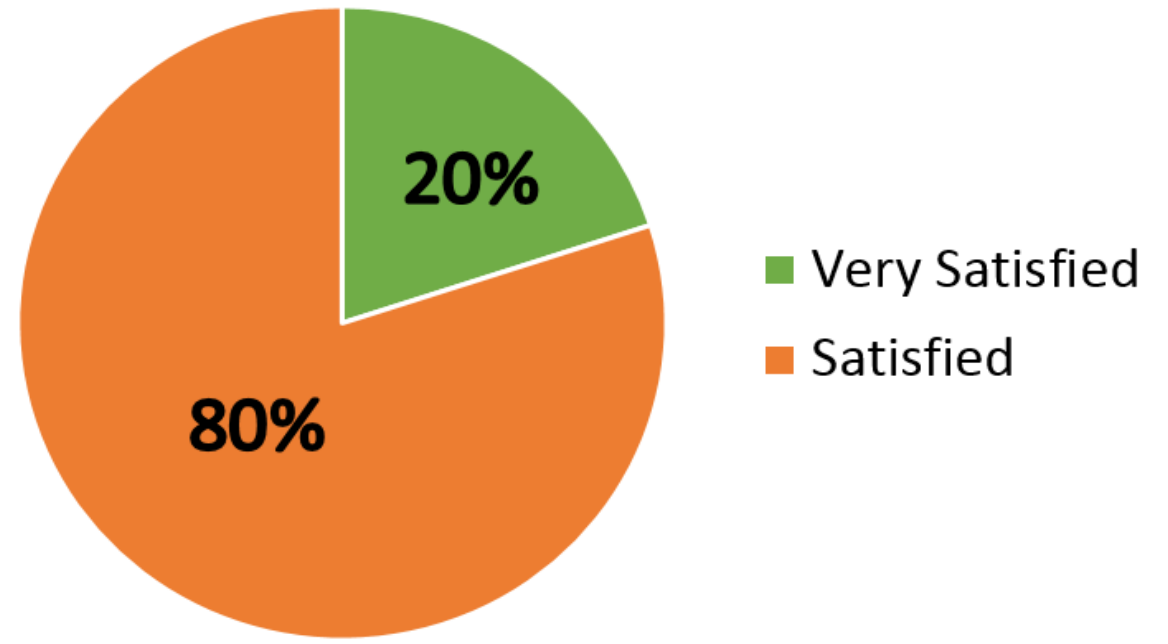
# Task Scenarios

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## Satisfaction with Website Navigability

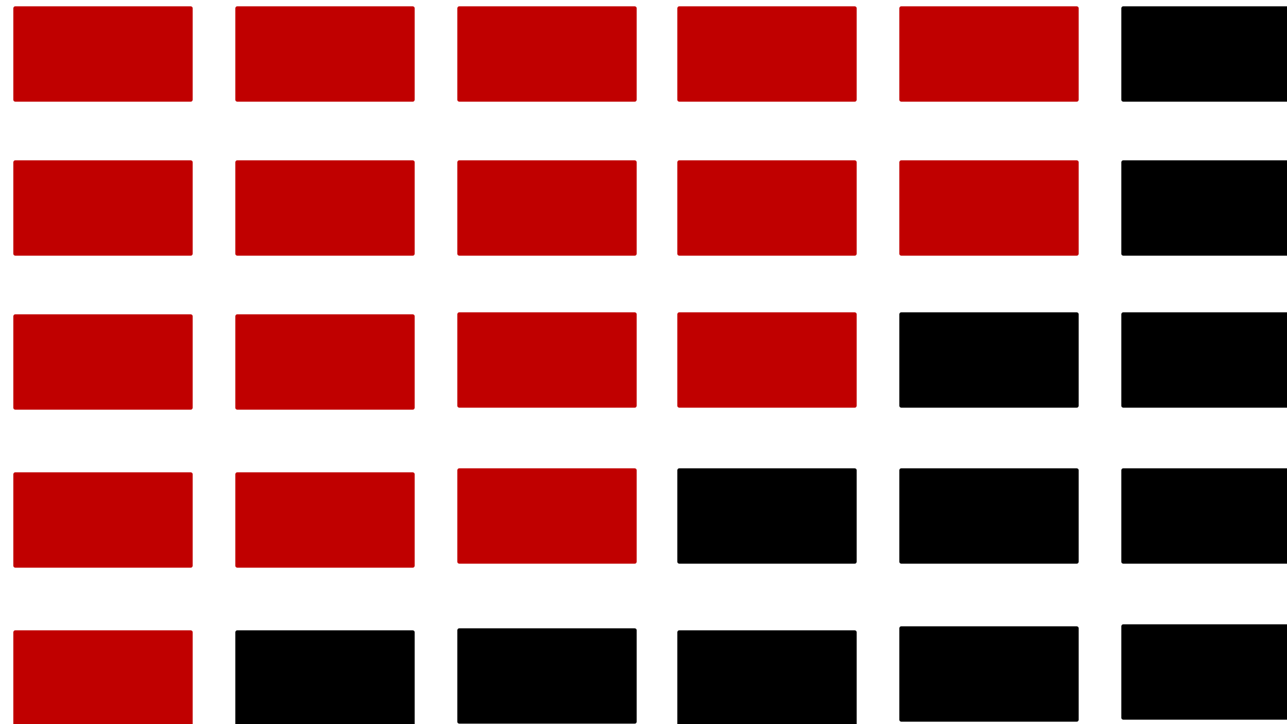


## Overall Satisfaction with Using Website



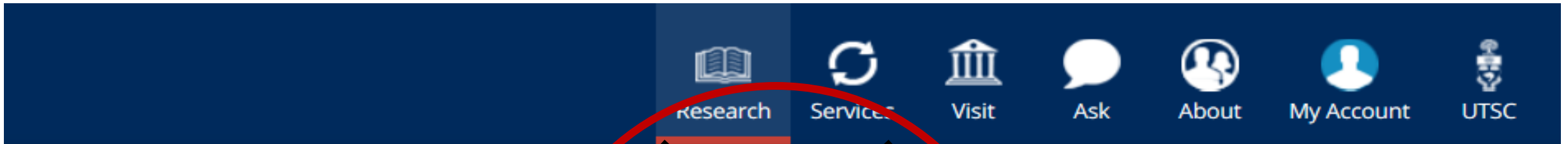
# Card Sorting

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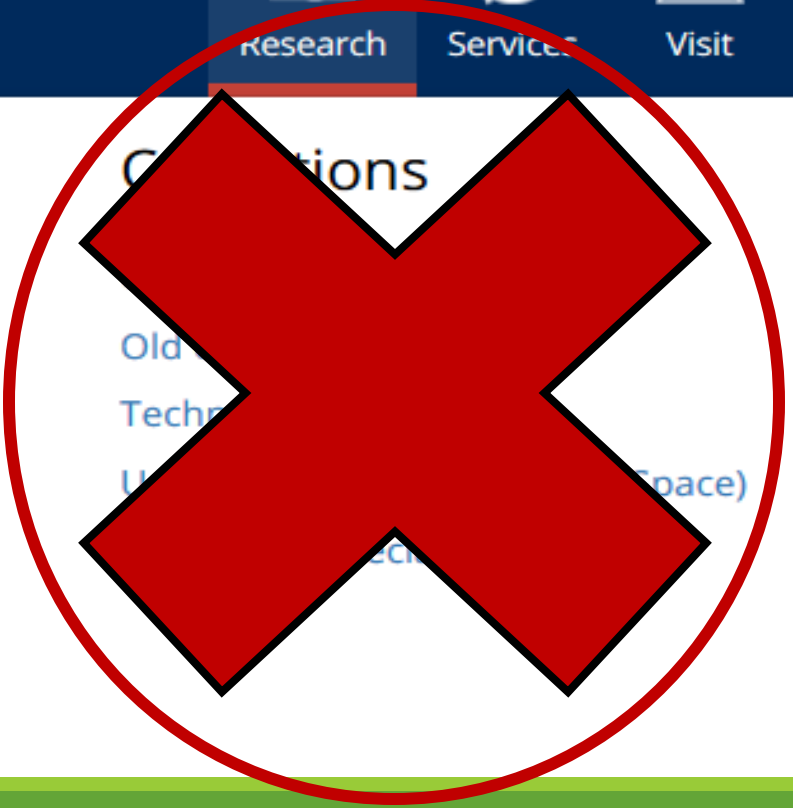
# Card Sorting

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## Find

- Books, ebooks, journals, and more
- Articles and databases
- Data and statistics
- Geospatial data, GIS, and maps
- Newspapers
- Audio, images, and video
- Government information



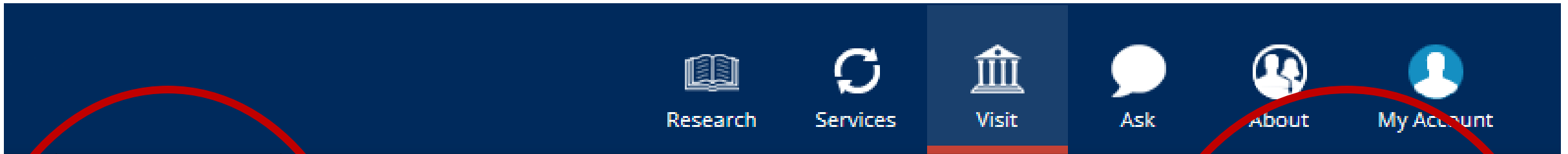
## Categories

- Old
- Techn
- U (Space)
- ec

## Tools

- Research guides
- How to cite
- RefWorks and citation management
- Peer review and Ulrich's
- Assignment calculator

# Card Sorting

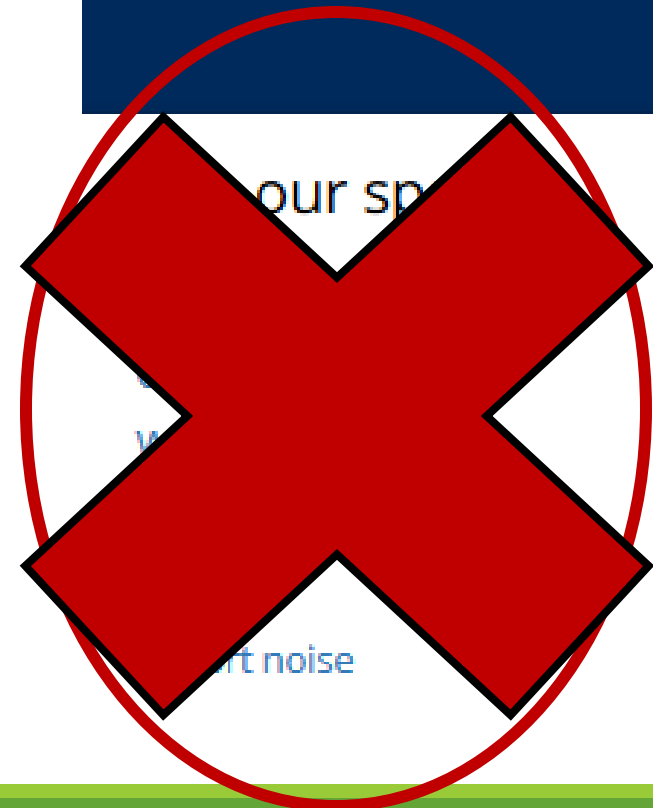


## Visitors

- Guest account for UTM and UTSG
- Alumni and other visitors
- External researchers
- International visitors
- Members of the public

## Library locations

- Cities lab
- Group study rooms
- Information and reference desk
- Library instruction lab
- Reading room



# Retesting & Future Directions

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- Next steps: implement changes re-test to see if modifications were effective
- Target additional problem areas we couldn't address during the first round of testing
- Future testing: mobile website

# Takeaways & Lessons Learned

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- Know your audience!
- Aim for less experienced users if possible
- Consider timing of testing – exams!!
- Assemble a usability team
- Set clear success criteria (task scenarios)
- Pilot test card definitions (card sorting)
- Data volume + manageability
- Prioritize what to test and what to change



# Questions?

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- Drop me a line!

Sarah Guay, [skguay@gmail.com](mailto:skguay@gmail.com)

**THANK YOU! 😊**

# References / Resources

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- Blakiston, R. (2015). *Usability testing: A practical guide for librarians*. London: UK: Rowman & Littlefield.
- Emanuel, J. (2013). Usability testing in libraries: Methods, limitations, and implications. *OCLC Systems & Services*, 29(4), 204-217.
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