Institutional Analysis and Planning Main Website Usability Test

Austin Fisher

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Introduction

The IAP main website acts as a central repository of important institutional data, allowing users to interact with some of the data to provide meaningful search results. It succeeds by incorporating live data feedback using embedded Tableau interfaces, allowing users to fetch their own data without the need of a third party. The goal of the website is to supply public data to users, eliminating the need for the department to fill out large amounts of individual requests, and providing this service in a fast, efficient manner.

A usability test is intended to determine the extent an interface facilitates a user's ability to complete routine tasks. Typically the test is conducted with a group of potential users either in a usability lab, remotely (using e-meeting software and telephone connection), or on-site with portable equipment. Users are asked to complete a series of routine tasks. Sessions are recorded and analyzed to identify potential areas for improvement to the web site.

The User Experience designer, taking on both roles of test administrator and data logger, and hereby referred to as test administrator, conducted an onsite usability test using a live version of the IAP main website located on their laptop. One laptop using Quicktime 7 software captured the participant's voice and navigation choices during testing. The administrator was present in the testing room. The sessions captured the participant's voice, navigational choices, task completion rates, overall satisfaction ratings, questions, and feedback.

Executive Summary

A set of onsite usability tests were conducted by the test administrator in a private testing office located in Needles Hall at the University of Waterloo, and in the administrator's personal office, from May 18th through June 1st, 2016. The purpose of these tests were to assess the usability of the web interface design, information flow, and information architecture.

A total of nine participants were involved in the usability tests. Typically, a total of eight to 10 participants are involved in a usability test to ensure stable results. Each individual session lasted approximately one hour. One test scenario was modified during the testing period to ensure accurate data was being retrieved.

In general, all participants found the IAP main website to be visually appealing and aesthetically promising, but struggled with finding relevant and appropriate information within the website. Four out of five participants (45%) thought the website was easy to use. All participants had some familiarity with the structure of a University of Waterloo website, with frequency of access averaging at once a week, and six out of nine (63%) of respondents were familiar with the Institutional Analysis and Planning department of the University prior to beginning the assessment.

The test identified some key problems with the website, including:

- Lack of summaries for large amounts of content
- Lack of context for links to documents and other pages
- Confusion over labelling of key navigation elements
- Terminology unfit for the broad target audience
- Excessive content on some landing pages
- Confusion of where to locate data
- Broken search functions

- Ordering of internal vs external links
- Ordering data of importance
- Confusion over apparent duplication of information/navigation

This document contains the participant's feedback, satisfaction ratings, task completion rates, ease or difficulty of completion, errors, and recommendations for improvements. A copy of the scenarios and questionnaires are included in the Attachments' section.

Methodology

Sessions

The test administrator contacted and recruited participants via personal references of IAP staff – individuals they felt would be comfortable participating, and with the appropriate amount of prior knowledge of the department for a successful usability assessment. The test administrator sent e-mails to attendees informing them of the test logistics and requesting their availability and participation. Participants responded with appropriate dates and times through an online poll. The test administrator then decided on the final time, contacting participants who were interested, and confirming the time. Each individual sessions lasted approximately one hour. During the session, the test administrator explained the test session and asked the participant to fill out a form for recording consent (see Attachment A). Participants walked through the different tasks and scenarios, with minimal assistance from the test administrator, and tried to complete them, typically tasked with finding information on the website.

After each task, the administrator asked the participant to explain their satisfaction with the process they took to complete the task. Other questions differed between tasks, but included:

- Accuracy of navigation
- Any changes to be made to the website to alleviate stress during tasks
- Anything that was particularly helpful
- What alternate approaches the participant may take

After the last task was completed, the test administrator asked the participant to verbally answer some subjective, complex questions, and then complete an online survey to answer final, general questions.

Included were the following:

- Perception of the site's value
- Target audience
- New suggestions for missing features
- Likelihood of future use
- What the participant liked the most
- What the participant liked the least
- Recommendations for improvement
- Satisfaction with use and results of different areas of the website

See Attachment B for all questions asked of the participants.

Participants

All participants were members of the University of Waterloo – some were students, some were staff. Each had varying technological backgrounds and different levels of knowledge of the Institutional Analysis and Planning department. Eleven participants were scheduled over the course of the two weeks. Nine of eleven participants completed the test. Three

participants were tested in the test administrator's home office, and six in the Needles Hall testing room. Two were male and seven were female.

The professions of each participant were different: Web Developer, Graphic Designer, UX Designer and Project Manager, Waterloo Content Management System (WCMS) Lead, Quality Assurance Director, Former University Professor, Library Assistant, and other similar University roles.

Evaluation Tasks/Scenarios

A preliminary test was conducted privately by the test administrator to determine which areas of the website might fail to deliver an optimal user experience. Notes were taken on efficiency of web content, style, navigation, natural user trends, and inconsistencies or errors. The administrator then analyzed those reports to determine which sections of the website should be addressed as topics in the user scenarios.

Test participants attempted completion of the following tasks and scenarios (see Attachment C for complete test scenarios/tasks):

- Evaluating the home page of the website
- Evaluating the entire website
- Finding rankings fact sheets
- Finding a survey instrument and its results
- Finding specific contact information
- Finding Key Performance Indicators
- Finding an using Tableau software within the website
- Finding access to Sharepoint

Results

Task Completion Success Rate

Since the first two tasks were only observation and analysis tasks, there were no wrong answers, resulting in 100% completion rates. Due to technical issues, two participants were not able to attempt Task 8.

All participants successfully completed Task 5 (finding contact info) and Task 8 (Finding Sharepoint access). Eight out of nine participants completed Task 7 (finding and using Tableau), and seven out of nine participants completed Task 4 (finding survey instrument and results). Only three out of the nine participants were able to reasonably complete Tasks 3 (finding ranking information) and 6 (finding key performance indicators

Task Completion Rates

Participant	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8
1	Υ	Υ	Υ	Υ	Υ	N	Υ	Y
2	Υ	Υ	N	Υ	Υ	N	Y	Υ
3	Υ	Υ	N	Υ	Υ	Υ	Υ	Υ
4	Υ	Υ	Υ	Υ	Υ	N	Υ	Υ
5	Υ	Υ	N	Υ	Υ	Υ	Υ	Υ
6	Υ	Υ	N	Υ	Υ	N	Υ	Υ

Participant	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8
7	Υ	Υ	N	N	Υ	Υ	N	Υ
8	Υ	Υ	N	Υ	Υ	N	Υ	
9	Υ	Υ	Y	N	Y	N	Υ	
Success	9	9	3	7	9	3	8	7
Completion Rates	100%	100%	33.3%	77.8%	100%	33.3%	88.9%	100%

Task Ratings

After the completion of each task, participants were asked to verbally evaluate their performance during the task:

The evaluations were on the following questions:

- Was that easy or difficult to complete?
- If you struggled, what aspect of the website do you think caused the most struggle?
- What would you suggest as an improvement to the experience?
- Any other comments?

Ease in Finding Information

All participants agreed it was easy to find the Tableau interface, and it was easy to use and understand as well. All participants also agreed that it was easy to find the necessary contact information. Most participants (77.8%) found it easy to locate the Sharepoint links. One third of the participants (33.3%) found it easy to locate the rankings information. And finally, no participants (0%) found it easy to locate the Key Performance Indicators. This illustrates how important it is to have an easy-to-navigate website, and where updates should be made.

Predicting Information Section

During Task 1, participants were asked to evaluate what they expected to find at each of the main navigational options without selecting them. Not every participant evaluated every option. The following table breaks down the accuracy of expectations based on number of participants who evaluated that specific navigational option. A low score indicates the navigational element may be unclear.

Test 1 – Accuracy of evaluation of navigational options

Task	# Participants	# Accurate	% Overall
1 – About IAP	7	7	100%
2 - IAP Campus Relations	6	0	0%
3 – Rankings	8	7	87.5%
4 – Reports	8	4	50%
5 – Student Surveys*	8	7	87.5%
6 - University Data & Stats	9	7	77.8%
7 – Events	5	0	0%
8 – Bottom Blocks – More Data Here	3	3	100%

* Most respondents (75%) gave mixed responses that they would find survey results, but would also find surveys to take under Student Surveys. These half-correct answers received an "Accurate" rating.

Errors

The test administrator kept note of recurring errors participants were making throughout the testing process. The task with the most errors was Task 6, Scenario 4. Finding the employment rates in the Key Performance Indicators proved very difficult as users tended to migrate to the CUDO results in the University Data/Stats menu for the information they required. Another frequent errors was that users would tend to click on external links far more often than internal links, simply because the external link is listed first. This can be fixed so the website encourages users to stay rather than travel externally for available data.

Overall Satisfaction

At the end of the testing process, the test administrator asked some extra questions for overall feedback of the assessment. Seven out of nine (77.8%) participants completed the survey. Due to the complexity of the assessment, it is expected for there to be a slight negative bias to the results.

Likes, Dislikes, Participant Recommendations

Upon completion of the tasks, participants provided feedback for what they liked most and least about the website, and recommendations for improving the website.

Liked Most

The following comments capture what the participants liked most:

- Clean and organized interface
- Colour scheme and general design
- Tableau design and functionality
- Organization of teams in the department

Liked Least

The following comments capture what the participants liked the least

- Methods of navigation (external links, lack of summary)
- Similarly titled pages
- Inconsistency in content display
- Large home page picture
- Dominating use of internal vocabulary with no definitions

Recommendations for Improvement

The following comments capture what the participants recommended to solve any issues they experienced with the website.

- State briefly what to expect on links
- Use more common terminology to help guide users
- Re-organize navigation menu to put all similar data under one heading
- Include a summary on each landing page of the page's contents
- Fix the search function it breaks on spelling correction search

Recommendations

The recommendations section provides recommended changes and justifications driven by the participant success rate, behaviors, and comments, as well as the test administrator's personal notes. Each recommendation includes a severity rating. The following recommendations will improve the overall ease of use of the website and address the areas where participants experienced problems or found the interface/information architecture unclear.

Final Recommendations Priority Chart

Change	Justification	Severity
 Add summaries to each landing page Add explanations of what to expect at each link 	Participants consumed a lot of extra time due to having to load pages before understanding what was contained on the page. Participants mentioned they were hesitant to click the proper answer because they weren't sure if it was actually what they were looking for.	High
 Use common terminology in the website Replace main picture with something smaller and more relevant 	100% of participants criticized the excessive amounts of content on the pages, and suggested a summary to keep users on the page. 66.7% of participants asked questions about internal terminology listed during various tasks, afterwards suggesting a definition or explanation within the page.	
 Search Bar (IST) – fix the dead link Use clearer highlighting colours (gold for highlighted) 	Some participants (22.2%) accessed the search bar, and were unable to access the information due to a dead link after the spelling suggestive search option re-directed them to a new search.	Very High
Merge "Reports" into "University Data/Statistics"	88.9% of participants mistakenly accessed University Data/ Statistics when searching for information that would be found within Reports.	High
Re-organize navigation of page content to maximize internal access over external links	77.8% of participants opted to choose the external links to find information over the internal links, simply because they were listed first.	Medium
 List newest, most relevant information first Modify Quick Facts to be relevant to the page content 	People have a negative response when redirected to a new, unfamiliar web page to retrieve content. This forces them to refamiliarize themselves with the new website, often resulting in the user growing frustrated or not even finding the information at all.	
 Small content modifications Home capitalization Contact on Teams pages position Re-name "System" to "Ontario" in KPI employment rates Re-name "MTCU KPI" to "Key Performance Indicators – MTCU" Make "All" stand out in Tableau Tint Tableau background Re-name "IAP Campus Relations" 	All of these were issues pointed out by at least two of the nine participants through the assessments. These problems prevented the users from reaching the desired the information in an appropriate time but were not the core cause for the delay.	Medium

Conclusion

Most of the participants found that the IAP main website did a good job of communicating important data in a meaningful way, through charts, graphs, and documents, however the process of finding the information was disrupted by confusion of the navigational content and what each option meant. Implementing the recommendations and suggestions in this report will enhance the website to be more user-centric, allowing future users to access the information with greater ease.

Attachments

Attachment A – Permission Form

IAP Website Usability Test Permission Form

Name of Participant:	
Role:	
The purpose of this usability session is for the team to gain in-depth insights to the user-friend for further improvement to better accommodate. Throughout this session, you will be asked que your responses will be recorded for our studies and can only be accessed by the IAP team. You questions that you are not comfortable with. Your participation in this session is voluntary. Your participation in the repercussions to you. Permission	dliness of the main department web site e public use in the future. estions in connection with the website and s. Your information will be kept confidential ou are free to refuse to answer any
By signing this form, I,	ormed by the IAP team and give
Participant Signature	Facilitator Signature
Date	 Date

Attachment B - All User Questions

All User Questions

Task 1 – First impressions of Home Page:

- What is your first impression of the website?
- What are the navigation options you see?
- What do you expect to see when you click on them?
- Who do you think the target audience for the website is?
- Why would they be interested in this website?
- Do you have any other comments regarding the homepage?

Task 2 – Spend a couple minutes exploring the website. Let us know what you think as you go through the site.

- Is it easy for users to return to the homepage from any other page?
- Is it easy for users to navigate throughout the site?
- Does anything take more time than it reasonably should? Why?

Tasks 3 through 8 – Scenarios – These questions were asked after each scenario.

- How would you describe the process it took to find the answer?
- What did you like/dislike about the process?
- What would you recommend to make this process better?
- Any other comments?

Post-test Verbal Questions

- What is the purpose of the website?
- Does the website succeed in delivering the information it provides?
- What is missing?
- Could you see yourself using a website like this in the future? If so, what would you use it for?

Post-test Private Survey Questions – Survey Monkey

- How satisfied are you with your website experience? Satisfactory Scale, 1-5
- What, if anything, do you find challenging/unsatisfying about this website?
- Which navigational features, if any, would you change and why?
- Does the website have a good balance of text and spacing?
 - If No, please state your reason and any suggestions for improvement
- Is it easy to find reports and student information (employment rates, graduation, etc.)?
 - If No, please state your reason and any suggestions for improvement

- Are the interactive data elements (graphs and charts) easy to use?
 - o If No, please state your reason and any suggestions for improvement
- Are the interactive data elements (graphs and charts) easy to understand?
 - If No, please state your reason and any suggestions for improvement
- What is your gender?
- What is your age?
- What is your past experience with the University of Waterloo's overall website? Frequency Scale, 1-5

Attachment C - All Tasks and Scenarios

Throughout all tasks, users were asked to speak their experience out loud, verbalizing every action taken throughout the assessment.

- **Task 1** What are your first impressions of the website? Take a quick look but do not click anything yet.
- **Task 2** Explore the website for a couple minutes. Try and navigate it how you naturally would, clicking on whatever grabs your attention most.
- **Task 3 Scenario 1** You are an Associate Dean, Graduate Studies who has received a question about a faculty ranking. You want to find out more about how the University ranks in the area of Engineering and Technology within Canada in 2015, from QS. Find these results.
- **Task 4 Scenario 2** You are an analyst in the Student Success Office. You would like to know whether the National Survey of Student Engagement survey instrument has changed in recent years. Find a copy of the survey instrument and the most recent results.
- **Task 5 Scenario 3** You are a university staff member who has to contact the head of the Data Analytics and Reporting team at IAP for information on the planning of new institutional space. Walk through the steps to find this information.
- **Task 6 Scenario 4** You are an alumnus from Waterloo, looking for some information about the employability of Waterloo students and how these compare with Ontario overall results. Look up employment rates for Waterloo alumni.
- **Task 7 Scenario 5** You are a professor looking at trends on student growth in a certain program to prepare for new classes. Look for the number of students registered in the fall term 2015 in civil engineering. Also, find how many of them are international.
- **Task 8 Scenario 6** You are a registered faculty member of the University and have seen a piece of information regarding the Senate Finance Package which you would like to access in more detail. Where do you go to find more data?

- This is a page break between reports. -

Usability Assessment

Institutional Analysis and Planning Main Website

Assessment Breakdown:

Task 1 - First impressions

Users have mixed reactions about the photo. While some simply pointed out how refreshing it was to see the picture on the page, the majority pointed out that it was too large, and should be cropped a bit so some content is visible on the screen upon loading. One user went as far as to suggest removing the picture altogether and replacing it with the existing navigation sidebar - keep the page focused on data.

The general consensus about the overall appearance of the website is positive. The elements are clearly organized and divided into appropriate section. The website follows a predictable format, and the grayscale colour theme is appealing to all users.

There is some divide over the acceptable amount of content one page should hold. While some users reported there was a balance in the amount of information provided, the majority of users commented that there was too much information for the home page. Perhaps bolding keywords, or providing a better summary in the mission statement would entice people to read further.

All users who were not employees of the university thought the Quick Facts were unnecessary and taking up space. Alternatively, all those who currently work for the university have commented that the Quick Facts carry very useful information in an easy-to-find space. One universal concern is that they don't stick out, and so need to be visualized or organized better, one suggesting an infographic. An overwhelming response from the users suggested that the Quick Facts should adapt to the currently displayed content.

Other noteworthy comments mention the redundancy of having the "Share" and "Top" buttons at the bottom of the page, when the footer already has the individual sharing icons and title bar; also modifying the buttons to highlight gold instead of grey – keeping Waterloo colours and more easily differentiating the highlighted material.

Overall: Feedback categorized the page as visually appealing in terms of aesthetic, but less so in terms of content.

Solutions: Crop the picture to retain its width but cut the height down by one third (i.e. cropping out the sky). Create a stronger summary/mission statement with more context. Bold keywords in the description (e.g. the first word in each bullet) to make sense of the content. Re-visualize Quick Facts, and expand its usage to fit the topic of each page. Remove either the "Share" and "Top" buttons, or the title and social media buttons.

Task 1 - Navigation Expectations

Many were surprised not to see Contact Info on the home page, or directly on the navigation bar at the bottom. That being said, everyone knew where to find contact info (About tab) if they needed to.

About – All users correctly assumed what they would find under "About", including contacts, and descriptions of the department in more detail (e.g. what we do).

Campus Relations – In contrast to above, no users were able to correctly identify what they would find here. Some guesses included how the department interacts with other departments, such as PR. Afterwards, they wondered why this was so high on the navigation, given how restrictive its content is.

Rankings – Nearly every user correctly identified what they would find in Rankings. Many listed "Maclean's". One user wasn't sure the type of rankings, and assumed student population rankings rather than the school's international rankings.

Reports – Half of the users correctly identified the content that would be found here, while others mentioned that the title was very broad. One user believed this section would generate a report on certain topics for the user, while a couple users chose not to guess at all because the topic didn't interest them.

Surveys – For most users, the contents were correctly identified, however, users also believed they would find online surveys to participate in on the website.

Data/Stats – While there was a general consensus that gathered data from old and new data sets would be here, people were unsure what type of data specifically they would find.

NRAC – No one seemed interested in this tab, and the couple of users that noticed it, thought it seemed very specific to have on the main navigation menu, especially considering all it contains is an external link and no specific information.

Events – No users were able to correctly identify what they would find under Events, assuming sit-down sessions were among the contents. After inspecting the tab, users agreed that a more appropriate name was "Important Dates". Almost half of the users recommended getting rid of the category altogether, merging the content instead with the relevant menu items.

CUPA – Only one user bothered to inspect this tab at all. Since it was at the bottom of the navigation bar, many people didn't notice it. They commented that this would make more sense in Events, if anything. Otherwise, users recommended taking this content and moving it to the home page directly so anyone vising the site would notice it. (I am aware the conference will be completed by the time this is submitted, so a better option would probably be getting rid of the tab altogether.

Overall: There are some strong areas and weak areas, and that is more subjective. Key takeaways are fixing any ambiguous labels and putting more thought into the importance of each navigation element when including it in the menu.

Solutions: Remove the standalone tabs (NRAC, CUPA), and incorporate those into either the home page or another suitable area of the site. Re-order the navigation pane so contact information is separate and at the bottom, keeping the "About" section the same, and simply having a link to the "Contact" tab. Modify "IAP Campus Relations" to a more relevant title, such as "IAP Sharepoint Access", "Advanced Access", or something similar.

The bottom tabs had positive feedback, however one user mentioned that it might be better to list more information before listing the help request, thereby swapping the placement of the tabs. This, according to them, would encourage users to explore the site more instead of immediately sending requests.

<u>Task 1 – Target Audience</u>

There is no consensus among users about who the target audience is. Answers included students, international families, internal staff, faculty, investors and stakeholders, with at least one answer including and excluding each of these categories. There seems to be no agreement.

Overall: Target audience is ambiguous.

Solution: One of the users mentioned restoring the "Student/Staff/Faculty" tabs which focused the experience of the site, however this goes against the current template. An alternative would be a generalized focus so the site can be more accessible by the public.

Task 2 – Site Exploration

There was no specific area which users tended to travel to first. Many comments were about the relevancy of data to their respective areas, or the use of misleading titles. Multiple people found their way to "Waterloo performance indicators", since it seemed important and interesting, and were disappointed to find they were taken away from the site and not shown some important indicators. Many found that most features on the site were not properly explained and only geared towards a specific internal audience with a previous knowledge of internal terminology. One user attempted to use the search feature, and discovered that when they clicked on the spelling suggestion, the page led to a dead link. They also commented how they couldn't tell if "This Site" or "All Sites" was selected. Since the rest of the text is lighter, they assumed that the darker tab would be the selected one, but this wasn't the case.

Overall: Misleading titles and lots of internal wording are ruining the experience for users. Search errors.

Solution: Prioritize the most important, useful information first on the navigation bar. Omit anything that isn't really important. Adapt Quick Facts to the page. Fix Search spelling bug. Modify the colours so gold is used to select the correct search tab.

<u>Task 2 – Home page easy to find?</u>

One user had troubles locating the "Home" button simply because it wasn't labeled "Home" but "IAP home". Another user was tempted to click the UW logo rather than the home button, because of habits with standard website design.

Overall: No real issue finding Home.

Solution: Capitalize "Home", or otherwise re-label the navigation menu.

Task 2 – Is the site easy to navigate?

All users agreed that the website is easy to navigate through. It is not unclear about where to click, but rather *what* to click. The navigation itself is very well done.

Overall: Navigation is fine, content is not.

Solution: No solution necessary.

Task 2 – Does anything take more time than it reasonably should?

Most users didn't have an issue with the usability of the website at this point. A couple users mentioned that it takes a long time to understand what the content is saying on the page. There are no summaries, keywords, etc. An effective way to keep the attention would be to address the focus of the page as simply as possible.

Overall: There's a lot of content per page. Too much to take in, and requires a summary. **Solution:** Include "Summary" as a category at the top of the main content on every major page, with a clear sentence of what to find and what the section can be used for.

Scenario 1 – ARWU/QS Ranking Results Fact Sheets

(Note: This scenario was modified after the first three testers to include the name of the ranking which should be looked at. The final destination was also modified from ARWU fact sheet to QS fact sheet)

All users knew to go to the "Rankings" tab. Once here, however, most users were unable to figure out where to go next, with many guessing the next move incorrectly. One user identified that the ARWU tab wasn't labelled correctly as per the survey it's referencing. Users who were in the updated scenario were able to locate the QS fact sheets easier. One of the main reasons why people had trouble finding the answer was because they didn't want to open a PDF. The other big reason was that because the external site was listed before the PDF, people tended to open the external link first. When asked why, they said they trusted the website would hold the pertinent information to our University rather than our University's website. Almost every user required assistance to find the information. Some got stuck when accessing external sites, while others would access the wrong ranking tabs.

Overall: Order is important – place local files (PDFs) ahead of external web links. Give a description to persuade people to open the PDF.

Solution: Add a brief sentence alongside each main link to describe what it is, or what one can expect when they click on it. Switch the external site link with the fact sheet link, prioritize internal resources. Fix the naming of the ARWU tab.

Scenario 2 – Finding survey instruments – survey results.

All users were able to navigate to the NSSE site without issue to find data. All main navigation elements were clear to them. The survey instrument was found with little problem. When it came to finding the specific results, users tended to report that there was too much text at once, and there was no way to find the information they needed quickly. A big issue arose when searching

for precise results. Most users ran into problems when opening up documents. The titles of the documents didn't mean anything to the users, and there was no indication as to what they would find when they opened the documents.

Overall: Big issues include the naming of important files, and too much body text.

Solution: Add brief descriptions of the links for general understanding of their contents. If listing results or key information in the body, provide a heading to draw the eye.

Scenario 3 – Contacts page – DAR contact (Jay)

All users navigated to the "About" section immediately. Half of the users found the contact with no issue at all. The other half had struggles with the labelling of "Contact Us" – some were expecting to find a form to fill out. Some users simply didn't notice the name of the team in the navigation pane, and ended up finding the contact within the "Our People" section. One big issue arose with finding the contact name on the team page. The users tended to skip over the final few lines of text in favour of the image at the bottom, missing the contact info.

Overall: Tab naming confused people, and the placement of contacts in general should be revisited.

Solution: Move the placement of the contact on the team pages to either below the image, or at the top of the page, separated from the main body text. It could be integrated as a sub-heading, becoming the first thing the user notices when the page loads. Perhaps re-name "Contact Us" to "Contacts", to be clearer about the page's contents.

Scenario 4 – Employment Rates (MTCU KPI) – Waterloo VS Ontario %

All but one user needed assistance in finding this information. Due to the nature of the information, almost every user chose to search for it in "Data/Statistics" first, which seemed completely normal. As it turns out, the same information rests in two completely different places of the website, except one is a more detailed version of the other. By going to CUDO – 2015 – K, the users found the Waterloo employment rate chart after graduating. However, the Ontario percentage section of the chart doesn't exist here.

There is also inconsistency with the landing page of Data/Statistics, as it doesn't list the subnavigation items.

Users then gravitated towards "Reports", and with a little guidance, still ended up clicking the wrong area. In "Reports", there are two tabs linking to performance indicators. Everyone clicked on "Waterloo Performance Indicators" because "it makes sense to be here," only to find the information was not there. They went back again, and with guidance, found the tab labelled "Ministry of Training, Colleges, and Universities (MTCU) Key Performance Indicators (KPI)". All users commented negatively on the long title, mainly how they couldn't pick out the keyword KPI to find their answer initially. Once accessing the table, users still weren't sure what they were looking at. Many users commented how they disliked how the Ontario chart reads "System". In one user's words, "I can see why they use that terminology, since it's what the system uses, but for people trying to read it, they don't know what it means at all. In that case, why bother using a vague term if you can use a clear word?" This piece of advice is the central argument for the entire assessment.

Users recommended merging the "Reports" and "Data/Statistics" pages into one, since the information they both contain is quite similar. The separation provides too many possible places for relevant data to reside.

Overall: "Reports" and "Data/Stats" are too similar based on potential content. Two different areas for Performance Indicators exist. Internal terminology is confusing for users.

Solution: I highly recommend doing a big overhaul of the Reports and Data/Statistics sections. This will solve a lot of the issues with redundant data across the two areas. One way of doing this would be to drop the Reports section to become a sub-category within Data/Statistics, so everything is in one area. Also, move either MTCU KPI or Waterloo Performance Indicators into the other, so all data referring to Performance Indicators can be found in one place. Lastly, rename "System" to "Ontario" or another related phrase for better comprehension.

Scenario 5 - Tableau Usage

All users managed to navigate to the Tableau pages reasonably well. There was an issue with deciding whether to click "headcounts" or "Full-Time Equivalents" since the website did not explain the terms. Once in, the system was used with reasonable efficiency. Some users complimented the layout and design as it was very easy to understand and intuitive. A very low learning curve is involved, some said. Users tended to click outside the interface to collapse the drop-down menu, but it wouldn't collapse because Tableau is embedded in the page, and they would need to click within the interface. Users said they couldn't distinguish the interface from the general page. When using the interface, many users didn't notice the "All" option, or would click it by accident. Despite small issues, all users were able to accurately find all the data they needed.

Overall: Interface is great, but could make "All" more obvious. Distinguish the interface from the page.

Solution: Include a line separating "All" from the rest of the options in drop-down lists, or make "All" entirely capital letters. Colour the background of Tableau a very light gray, just enough to distinguish it from the white page background.

Scenario 6 – Sharepoint Access through Senate Finance package

Most users had no issue finding the Sharepoint access within the Senate Finance Package. However, when asking where else they would access this data, users struggled. When the "Campus Relations" tab was pointed out to them, many commented on how that wasn't an accurate description of what one would find, and they would never think to go there for this type of content.

Overall: Accessing content is decently okay, but navigation could be cleared up.

Solution: Re-name the tab "IAP Campus Relations" to, as one user suggested, "Sharepoint Access for IAP data", or something with a similar meaning, indicating the extra data that can be found at this location.

Survey Questions:

Users reported an over neutral satisfaction of the website, with the most users reporting it a Satisfactory experience, or four stars out of five. The majority agreed that there was not a good balance of text and white space on the website. Almost every user reported it was difficult to find specific reports and student information, suggesting to re-word the navigation menu to list the results, rather than the sources as their titles. All users stated it was easy to use and understand the Tableau software.

Final Summary:

The current website is geared in a way where, in order to discover what a page contains, the user must click on the page and then read the information on the landing page. This process isn't a bad approach, however it makes every visit more time-consuming, since the user has to explore the site before understanding what it contains. The improvements to be made, as indicated in the above scenarios and tasks, would be to indicate what a page contains before the user opens it, so they know what to expect, and to save time loading pages they don't want to visit. This could include prompts like "Click here for more survey results" or a similar statement, to help guide the experience. This also includes PDFs, or links to other documents – it is important to indicate why someone should open the document before they do, so an extra line to explain what can be discovered at the link can clear up most navigation issues. Alternatively, integrate the content of the document right into the web page so the user does not need to open a separate window.

It's important to be concise when delivering a lot of data. One wants the user to be able to uncover the answer they're seeking with reasonable efficiency, therefore a block of text in the main body may be better broken up into bullet points, headings could be added to organize the data on one page, and the Quick Facts could be used to display relevant, frequently accessed data within the category to make discovery that much easier. These suggestions can help clean up most scattered content within the different landing pages.

The navigation menu is the one-stop shop for everything a website contains, so it's important to be as clear as possible and provide one category for each piece of relevant data. Sub-tabs should be clearly labelled and identifiable, so darkening some of the backgrounds could be beneficial. Standalone pages should not be included here unless they contain very pertinent information. Merging "Reports" into "Data/Stats" can solve a lot of the navigational issues, as well as re-naming "IAP Campus Relations". Contact info is widely accepted as residing at the bottom of web pages, so it would be good to modify the position of this "Contact Us" tab to adapt to modern web trends.