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Professional and Technical Writing Website Usability Report
Report Document

Research Team: UX - JMAJ
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Alyssa Wilbert, Jacob Bostick, John Thompson

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EXECUTIVE SUMMARY

Overview

The objective of this research report is to outline objectives, findings, and recommendations as a result of conducting user experience testing for the University of Colorado Colorado Springs (UCCS) Professional and Technical Writing (PTW) website. The primary research objectives driving the focus and design are below.

- Assess content relevant to encouraging students to take PTW Classes
- Evaluate the aesthetics and overall functionality of the site
- Determine if the career and future opportunities information meets students' needs

Method

We conducted five tests with users who were all students either at four-year institutions or students expecting to transfer to four-year institutions from two-year colleges. Users were asked background questions, given specific tasks designed around testing our research objectives, and asked questions in a posttest interview. Successful completion for tasks pertained to a target page/target information, time to arrive on the target, and clicks taken prior to finding the target.

Main Findings

Below are the key highlights from our research that directly impacted our recommendations for site changes. Ultimately, users liked the simplicity of the site and overall design.

- On average, three of five users were able to successfully complete the tasks.
- Designed for testing the career information, task two had the worst success rate at only two of five users successfully completing the task.
- Users reported the Senior Portfolio page formatting was inconsistent with the rest of the site and confusing at times.
- Four of five users experienced an unexpected redirect to the homepage after clicking the "Professional Technical Writing" link just below the main tabs.
- Three of four users could not clearly explain what the PTW Program was after exploring the website.

Key Recommendations

Below are the top recommendations developed from the data and user insight as a result of our user experience tests.

- Change the wording of the "Professional and Technical Writing" homepage link to include the word "Homepage."
- Make the wordle bigger – the visual appeal was good, but the size reduced functionality.
- Create a separate tab for career information.
 - o Include information on the homepage that is currently in the body paragraphs and format it into a bullet point structure.
- Create a tab for Minor/Major information.
 - o It would be suitable to include a link to the Degree Plans here.
- Change the format of the Senior Portfolio page to match the Mission and Outcomes page.
- On the homepage, include information and an infographic on what the PTW program is to address the lack of user understanding of the PTW program.

PURPOSE/OBJECTIVES

MAIN PURPOSE STATEMENT

Our task was to test the usability of the UCCS PTW website using a series of techniques: The Think Aloud Protocol aided by screen and audio capture followed by a posttest interview. Our client's objectives were to encourage students to take PTW courses and/or sign up for PTW majors and minors by creating an impactful website that is easy to navigate and pleasurable to use.

Primary Client Objectives

- Encourage students to take PTW classes and/or sign up for PTW majors and minors
- Build an impactful site that is easy to navigate and is a pleasure to use
- Specify the potential possibilities PTW has to offer with a focus on career impact and goals
- Provide an accurate feel of the program regarding missions and outcomes

USABILITY TEST OBJECTIVES

Our goals were to identify potential negative user experience issues on the PTW Program website through usability testing focusing on career impact and Missions and Outcomes. We then provide general recommendations for future iterations of the website after analyzing the issues identified during the testing.

Primary Testing Objectives

- Assess content relevant to encouraging students to take PTW Classes
- Evaluate the aesthetics and overall functionality of the site
- Determine if the career and future opportunities information meets students' needs

RESEARCH QUESTIONS

We designed key research questions to guide our inquiry and to ensure we remained focused on the intent and purpose of this project. Below are the questions.

Research questions

- How does the content encourage students to take PTW Classes?
- What aesthetics of the site are conducive to a pleasurable and productive user experience?
- What information do students prefer to see on this site?

METHODOLOGY

RESEARCH METHODS

We have conducted five tests designed around measuring the effectiveness of the UCCS PTW website. The three main testing categories are: aesthetic appeal, functionality, and meaningful/relevant content. To test these categories, we employed three separate testing strategies: Think Aloud Protocol, screen and audio capture, and a posttest interview. To combine a qualitative and quantitative approach, we solicited feedback about the user experience related to a

set of specific tasks centered on our research questions. Upon receiving the feedback, we analyzed the screen recordings and time measurements of the completion of the tasks, addressed our research questions, and determined specific errors, strengths, and deficiencies on the site. Our testing materials are located in Appendix-E, F, G, and H.

Think Aloud Protocol

- We encouraged users to actively speak aloud about their experiences with the individual tasks. The data provided insight into the thinking process, feelings, and preferences of the users.

Screen & Audio Capture

- This process combined screen and audio capture to record the Think Aloud Protocol technique while simultaneously being able to see the on screen actions of our users.

Posttest Interview

- The moderator conducted the interview after the completion of the three tasks. This allowed us to assess the users' opinions of the site, their suggestions for improvement, and user preferences associated with each task.

ROLES AND RESPONSIBILITIES

Moderator – Alyssa Wilbert

Alyssa was in charge of user interaction to include test facilitation, pretest introductions, pretest questions, and posttest interviews. She was also responsible for coordinating with the other team members to ensure all testing materials and requirements were met prior to testing.

Technical Specialist and Recruiter – Jacob Bostick

Jacob was in charge of recruiting members for testing along with maintaining an overall seamless testing environment. Jacob followed the recruitment guidelines outlined in the participant section of the Usability Test Plan and was responsible for the finalization of overall site changes and recommendations.

Data Recorder and Analyst – John Michael Thompson

John ensured the sessions were organized, that all necessary testing materials were available on testing day, analyzed data, created reports for summarizing findings while collaborating with fellow team members, and communicated all testing data.

USABILITY TEST PLAN

The above goals, client objectives, methodologies, and test design was outlined in our usability test plan. We designed the testing strategy in the plan around identifying issues relative to our goals, but some deviation from the original plan was necessary throughout the testing process. On the next page we have highlighted the main deviations from the plan and noted where the test plan remained unaltered in practice.

Usability Test Plan Alterations

- **Test Design:** The test design was altered only slightly from the Usability Test Plan document. All essential documents, scripts, tasks, and background questions remained as designed in the plan with the exception of the addition of a seventh posttest interview question. We added the question, “What is the PTW program?” This question was designed to identify if the overall intent of the site was being conveyed to the user.
- **Physical Testing:** Contrary to our plan, we did not have a consistent moderator for each test. Scheduling conflicts made it challenging to fulfill this goal while still completing the project in the anticipated timeframe. Each group member moderated at least one test, and as a result, there may be slight variations in the data.
- **Anticipated Test Plan Data:** We were able to gather the data cited in the test plan; however, we must acknowledge that the deliverables have been altered. The test plan called for focus on the statistical significance of success rates and times. Our data shows large variances in metrics between users, thus, we have placed very little emphasis on the statistical interpretation of our results.

USER PROFILE

THE USER

The population using the PTW website can be divided into UCCS faculty, UCCS students, faculty from other institutions, and potential transfer students. We focused specifically on student users because they are the largest population directly impacted by the PTW website.

USER PERSONA OUTLINE

Our ideal user student groups are listed below. We were able to conduct the five tests along with recruit students, all of whom were not PTW minors or majors. The group of participants did include a user from the Fall 2016 ENGL 3860-001 UX: Methods and Research class. Below we list our original test plan ideal user groups.

- **Pre Major/Minor** - This group of students does not have a decided major or minor. These students can also change their major or minor relatively easily without requiring more than another year to complete their degree plans.
- **PTW Class/UX Class** - This group of students is taking a PTW/UX class, without the intent to major or minor in the program.
- **Post-PTW/UX Class** - This group of students have taken at least one PTW/UX class. These students are able to provide advice on what courses to take with whom. They also may have his or her own opinions on the technical writing field. For the purposes of this study, students who are pursuing a PTW/UX major or minor will be in a separate category, unless there is a need for more participants.
- **PTW/UX Minor or Major** - This group of students have formally added the PTW/UX minor or major to their degree plan.

Our Test Participants

We were able to find pre major/minor students from the major/minor fair and from students at Pikes Peak Community College. Users from Pikes Peak Community College allowed us to evaluate the effectiveness of the website from an alternate perspective to that of UCCS students. PTW students came from Dr. Van Winkle's Fall 2090 class. Due to time constraints, we were not able to recruit and test students who fit the post-PTW/UX class or PTW/UX minor or major categories. We do still believe that our results provide valuable information because students in the major or minor likely tend to have more motivation to find information, and updates to the website will still help the untested population.

FINDINGS & DATA

DATA - QUANTITATIVE MEASURES

We used screen and audio recording to capture each test. This allowed us to track (by the second) time spent on each task and the specific clicks users made during the tasks. We have included the transcript of each test in Appendix-D. All three tasks are listed below along with the definitions of successful completion and the data collected for each task.

Definition of Successful Completion by Task

	Page/Information User Must Find	Time for Successful Completion	Max Number of Clicks to Complete Task
Task 1	Mission/Outcomes page	30 seconds	2
Task 2	Homepage - career information	15 seconds	1
Task 3	Senior Portfolio Requirements page - or Homepage Degree Plan sentence	30 seconds	2

Results

Task 1:

- "You have just run across this website. You are a student who is interested in learning more about Professional and Technical Writing. Explore the site to get a feel for the program."

Completion	User 1	User 2	User 3	User 4	User 5	% Successful	Target	Difference
Successful Completion	No	No	Yes	Yes	Yes	60.00%	100.00%	-40.00%

Quantitative Measure	User 1	User 2	User 3	User 4	User 5	Average	Target	Difference
Time for successful completion (seconds)	n/a	88	19	4	7	29.5	30	0.5
Clicks to complete task	3	1	1	1	1	1.4	2	0.6
Number of Errors / Obstacles	0	0	0	0	1	0.2	0	-0.2
Time spent on target Page (Mission and Outcomes)	n/a	49	15	50	149	65.8		
Total Time on Task (seconds)	143	254	79	101	276	170.6		

Task 2:

- “In this task, you are interested in the career and future opportunities the PTW program has to offer. You are also curious about earnings potential and specific job titles. Explore the site to find out what kind of information is available.”

Completion	User 1	User 2	User 3	User 4	User 5	% Successful	Target	Difference
Successful Completion	Yes	No	No	Yes	No	40.00%	100.00%	-60.00%

Quantitative Measure	User 1	User 2	User 3	User 4	User 5	Average	Target	Difference
Time for successful completion (seconds)	1	195	85	5	72	71.6	15	-56.6
Clicks to complete task	1	7	6	1	3	3.6	1	-2.6
Number of Errors / Obstacles	0	1	2	0	0	0.6	0	-0.6
Time spent on target Page (Homepage)	69	65	42	155	80	82.2		
Total Time on Task (seconds)	70	260	122	160	162	154.8		

Task 3:

- “Now you are wondering about what kind of requirements and classes are needed for the PTW minor or major. Explore the site to find out answers to your curiosities.”

Completion	User 1	User 2	User 3	User 4	User 5	% Successful	Target	Difference
Successful Completion	Yes	No	Yes	Yes	Yes	80.00%	100.00%	-20.00%

Quantitative Measure	User 1	User 2	User 3	User 4	User 5	Average	Target	Difference
Time for successful completion (seconds)	31	185	27	33	21	59.4	30	-29.4
Clicks to complete task	Y	3	1	2	2	2.0	2	0.0
Number of Errors / Obstacles	1	0	1	0	0	0.4	0	-0.4
Time spent on target Page (Portfolio Requirements)	20	0	33	83	76	42.4		
Total Time on Task (seconds)	108	185	120	185	129	145.4		

Note: User 1 & 4 – Think Aloud Protocol influenced time on this task. Thus, users one and four were given a pass for completion given they would have met the target time had they not been talking aloud to such a high degree.

SUCCESSFUL COMPLETION ANALYSIS

- **Task 1** – Three of five users were able to complete this task successfully. The main inhibitor to success was associated with either spending too much time initially on the homepage or skipping the Mission and Outcomes tab all together.
- **Task 2** – Two of five users were able to complete this task successfully. With the exception of User 1, all other Users did not expect to find the career information on the homepage. We have not listed this as an explicit obstacle/error but categorized it as a preferential item given the feedback was unanimous across all participants for changes to be made on the career information placement.
- **Task 3** – Four of five users completed this task. Overall, users reported dissatisfaction with format and content of the Senior Portfolio Requirements page.

USER OBSTACLES/ERRORS

Errors for our usability test were defined as anything preventing the user from completing a task that was/could have been controlled by the website design, format, and content. Also, obstacles were defined by any unexpected result or occurrence obtained or experienced by the user as a result of the user interaction with the website.

Hierarchy of Obstacles/Errors

Below we have listed the errors/obstacles separated by task and user. Because our users did not experience a broad range of errors, we have listed the most frequent obstacle in red below. The most frequent obstacle was experienced by four of the five users. Other than time as a factor for successful completion, there were no other major obstacles or errors experienced.

One issue that led to low completion rate on task two was the inability to initially find the information on the homepage. This has not been listed as an error/obstacle due to the consensus among the test participants that the career information needs to be changed in some way. Thus, we have listed this as a preferential item and made it a key highlight in our recommendations section of the report.

Professional and Technical Writing Link

Most Frequently Experienced Obstacle pictured below:

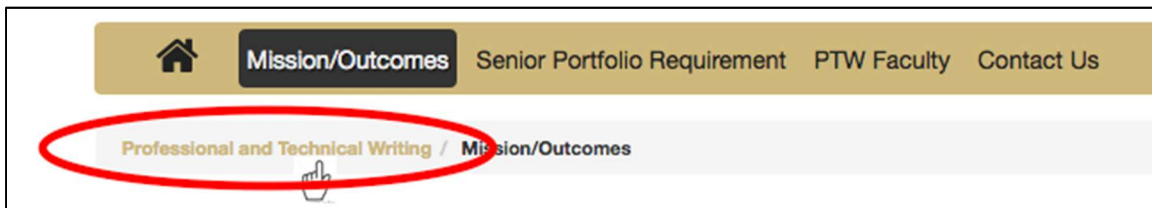


Figure 1: Link Navigation (Source: PTW website)

Breakdown – Obstacles/Errors

Task 1	
User 1	None - User did not complete task but no obstacles prevented user from completion
User 2	None - User spent excessive time on the home page inhibiting user from completing the task in the target time frame
User 3	None
User 4	None
User 5	Technical Writing link - Unexpected return to homepage

Task 2	
User 1	None
User 2	User gave up just under 3 minutes into the task and was prompted by the moderator to continue Technical Writing link - Unexpected return to homepage
User 3	Technical Writing link - Unexpected return to homepage
User 4	None
User 5	User expected to find the information in the Mission and Outcomes page associating "outcomes" with career outcomes

Task 3	
User 1	Technical Writing link - Unexpected return to homepage
User 2	None - User did not complete task due to excessive time taken to find target page/information
User 3	None - Note: Technical Writing link was used by user this time on purpose to get to homepage
User 4	None
User 5	None

*Red - Indicates Highest Priority Obstacle - Experience by 4 of 5 Users

CLICK LOGS

Below are the click logs broken down by user for each task. When the amount of data was sufficient, the median click has been expressed. The key to the right must be used to evaluate each coded click.

Key	
H	Homepage
M	Mission/Outcomes
S	Senior Portfolio Requirements
F	PTW Faculty
C	Contact Us
O	Other

Task 1:

Click logs	User 1	User 2	User 3	User 4	User 5	Median
1st click	C	M	M	M	M	M
2nd click	F	C	S	S	S	S
3rd click	S	F	F	F	H	F
4th click		S	C	C	S	*
5th click					M	*
6th click					S	*
7th click					F	*

*No Median

Task 2:

Click logs	User 1	User 2	User 3	User 4	User 5	Median
1st click	H	H	O	H	S	H
2nd click		M	O		M	M
3rd click		S	O		H	*
4th click		M	H			*
5th click		F	M			*
6th click		C	H			*
7th click		H				*

*No Median

Task 3:

Click logs	User 1	User 2	User 3	User 4	User 5	Median
1st click	F	M	S	H	M	M
2nd click	M	S	F	M	S	*
3rd click	H	H	C	S	F	H
4th click	M		M	M	C	M
5th click	S		H	F	M	*
6th click	C			H	S	*
7th click	H					*

*No Median

DATA - QUALITATIVE

Qualitative data was obtained through analyzing each participants test, posttest interview, and statements during the Think Aloud Protocol. The data is organized in two different spreadsheets (Appendix-A and Appendix-B) that summarize key statements and actions made by the user, either explicitly or implicitly, regarding the preferences of his or her experience.

Overall the users were complimentary of the PTW website in general. They liked the simple design, overall flow and content, and organization of the content. There was unanimous support for the Missions and Outcomes formatting, and support for the color elements in the main graphic on the homepage (wordle). Below are the most frequent preferential occurrences/desires made by the users.

Key Qualitative findings:

- Mission and Outcomes page was very well received. Users liked the organization of bullet points and headers/sub-headers. The only complaint on this page was the large quantity of information. Users were unlikely to read all the information aside from the main headers.
- Users liked the career information once they found it. Multiple users expressed having the information on the home page was effective, however, it was hard to find.
- All users expressed a desire for a majors/minors information tab or link.
- The Senior Portfolio Requirements page content was well received, especially the questions and answers; though multiple users expressed a desire for the format to change to a more structured bulleted list.
- The wordle graphic was aesthetically pleasing to users but not functional.
- The PTW faculty page was effective. Users specifically liked the background information and pictures of the faculty.
- Across the board, users had trouble explaining/defining what the PTW program was.

In-depth Qualitative Data by User

A more in-depth breakdown and summary of each user's think-aloud preferences and posttest interview question responses is located in Appendix-A and Appendix-B. Along with these summarizations, the transcripts of each test with time markers and posttest interview question responses are located in Appendix-D.

- The task breakdown (Appendix-A) of qualitative information provides a summary, by user, of what occurred during each task and what the users expressed.
- The posttest interview question responses (Appendix-B) cites the key responses, by user, to each question.
- Further analysis and interpretation of the data is listed in the recommendations section of the report where specific site changes are listed that address the data and preferential findings.

SITE FEATURE RECOGNITION AND UNDERSTANDING OF PTW

Site Features

During the data review process, we noticed patterns of behaviors across the users that we did not anticipate in our original test plan. Below we have included a few noticeable occurrences associated with these patterns and their frequency.

- Seeing the Facebook (FB) link
- Noticing what the wordle graphic was on the Homepage
- The desire to leave the PTW website
- Noticing the last sentence on the Homepage which directs potential students to explore the degree program for further information pertaining to courses

	User 1	User 2	User 3	User 4	User 5
Notice FB link	No	Yes	Yes	No	Yes
Notice wordle	No	Yes	*Yes	Yes - Prompted	No
Desire to leave PTW site	No	Yes	Yes	No	No
Contact Degree Plan	No	Yes	Yes	No	No

*Noticed twice - first time did not notice what it was

Understanding of PTW Program

After the first test, the last question of the posttest interview was added asking users – “what was the PTW program?” This question was delivered to users two through five, and the results were measured by their definitions and responses with two of the four responders admitting they had no real idea what the program was about.

Understanding of PTW	User 1	User 2	User 3	User 4	User 5
	*N/a	Somewhat	No	No	No

*User 1 was not asked this question

TESTING/DATA BIAS AND MODERATOR ERRORS

Task Metrics – Averages

Averages for the metrics have been included, but given the small sample size of participants, the averages have not been used for, nor will yield, any meaningful recommendations. We have decided to include the averages for the sole factor of speculation on average times and clicks versus the target times and clicks.

Testing User Bias and Moderator Induced Bias

Below is a listing of items that may have skewed our test data. We have broken key occurrences by user and task along with an overall acknowledgement of some possible issues that may have influenced the quantitative results.

Possible Items Skewing the Results

Error / Bias by User	
User 1	Task 1 - User did not complete the task - moderator prematurely prompted user to second task prior to looking at the mission outcome page
User 2	Task 2 - Moderator led the user to finishing the task - user would not have found information without moderators influence
User 3	Task 2 - Moderator prompted user to find the wordle - may not have noticed without prompt
User 4	n/a
User 5	Task 1 - Moderator led participant to continue exploring site impacting total time on task metric Task 2 - Moderator Prematurely ended task shortly after user discovered career information impacting time spent on target page
Overall Things that Skew Data	
1	Time spent with Think Aloud - times varried based on how much user thought aloud
2	Clicks - users who struggled to find information became frantic in their clicks and clicked pages more often due to hightened anxiety
3	Bullet point question in posttest interview may have influenced later answers by placing focus on site format, not experience

Time

Our quantitative data relies heavily on time measurements. As noted above, due to the use of Think Aloud Protocol, our results are not an accurate representations of a user’s natural experience. That being said, at this stage of testing the website, the ability of Think Aloud Protocol to deliver preferential data as well as answers to why users were doing what they did is far more valuable than in-depth, accurate time studies.

Clicks and Click Log

Users clicked frantically when anxious about a task. While this may have led to odd patterns on the click logs, we believe this data is fairly accurate in representing an actual user’s natural experience. We speculate that users, under non-testing conditions, would still experience some degree of anxiety if they cannot find information they are looking for on the site.

RECOMMENDATIONS

OBJECTIVE

The following two questions have been supplied by our client and have been used to focus our analysis and recommended changes to the PTW website.

- Based on the findings, what should be done to improve the PTW website?
- How and/or why will the suggestions/recommendations made improve the website?

MAIN USER RECOMMENDATIONS

User 1

- Recommended course list, bullet points
- Likes the Q&A section

User 2

- Needs explanation for Senior Portfolio picture or different picture
- Bullet points on Senior Portfolio page

User 3

- Needs Degree Plan information

User 4

- Make wordle bigger
- Liked common typographical elements like the Missions and Outcomes page

User 5

- Wanted more broad topics for tabs and bigger wordle
- Needs tabs on majors and minors, career information, and degree plan information
- Not enough color contrast between tabs
- Move Facebook section next to the body of the page

NAVIGATION

Many of the usability test participants had trouble understanding how the navigation system worked, as shown in Figure 1 in the Data Findings Section. Adjust the words “Professional and Technical Writing” in the homepage link to include the word “Homepage.” One user pointed out that there was a lack of contrast in the different tabs, as shown in Figure 2. A way to remedy the link navigation and contrast problem is to change the color of the background when the user hovers over the tab as shown in Figure 3 on the next page.



Figure 2: Professional and technical writing Navigation (Source: PTW website)

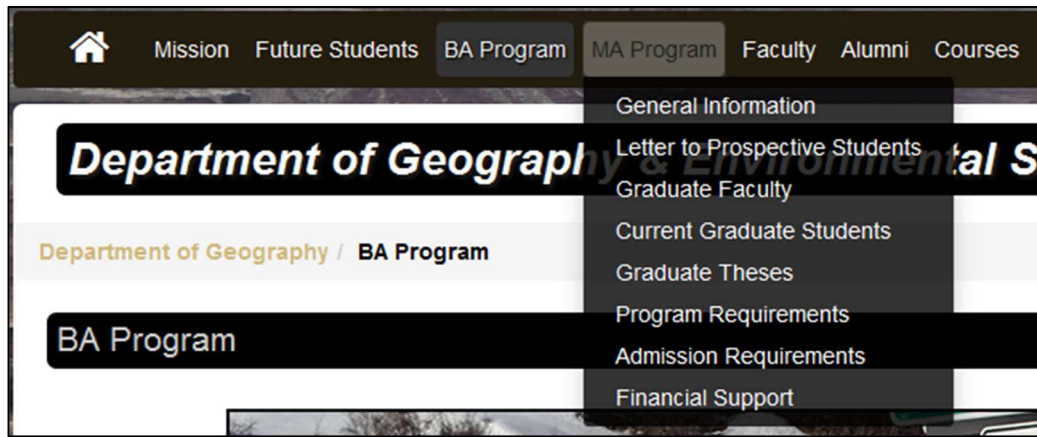


Figure 3: Geography and Environmental Studies Navigation

Source: http://www.uccs.edu/geography/undergraduate_students.html

By using contrast, the user can get a better idea of what page he or she is on. This would get the user in the mindset that the navigation tabs are above the links.

CAREER INFORMATION

Usability test participants also wanted a bigger wordle and easier to find career information. When looking at the wordle, users were less inclined to look at words that were not horizontal and in the center of the wordle. One way of fixing the ease of use problem is to create a tab with career information. In the tab, there could be bullet points about the careers and potential earnings and links to the Occupational Outlook Handbook or the CareerOneStop website.

DEGREE PLAN

Users had a difficult time finding information on the courses for the Professional and Technical Writing Program. When they did find courses, they were unsure that they had found what the site had to offer. To fix this problem, we recommend a tab similar to the MA Program in Figure 3 where the titles would be Major/Minor. Under this tab could be subtabs linked to the degree plans in the catalog or from the advising website.

TYPOGRAPHICAL ELEMENTS

When asked what form of written information participants preferred, all participants cited bullet points, with the exception of preferring paragraphs for detailed information. One participant also explained that the senior portfolio page lacked a header system, like that of the Missions and Outcomes page. After participants had looked through the site, they were unable to describe what the PTW program is. Include information pertaining to what technical writing is on the homepage to address this issue.

Facebook link

One participant explained that she would have not seen the Facebook box, as pictured in Figure 4, had she not scrolled down. A better spot for the Facebook box would be to the side of the text, which would be condensed to bullet points.



Figure 4: Facebook Box (Source: PTW website)

Mission and Outcomes

Overall the feedback was positive on the Mission and Outcomes, though the content could be reduced slightly as pictured in Figure 5 below.

Mission

Mission Statement

Broadly, GES seeks to

- broaden students' understanding of the world in which they live
- produce graduates with an appreciation for the discipline of geography
- prepare students for careers and productive citizenship through lifelong learning
- highlight the importance of inclusivity

Specifically, GES seeks to

- educate students about human and physical processes that shape the natural and cultural landscape
- foster understanding of human-environment interactions and sustainability
- provide technological skills needed to study spatial relationships

Figure 5: Geography and Environmental Studies Mission Statement

Source: <http://www.uccs.edu/geography/mission.html>

Senior Portfolio Requirements

The Senior Portfolio Requirement page has a large photo that one participant explained caused her to scroll down to get to the information she was looking for. The photo was also missing a caption, confusing the user on the picture's purpose.

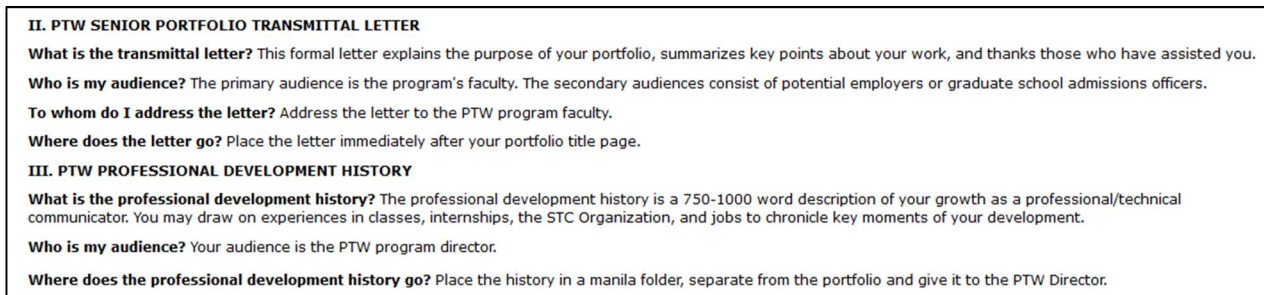


Figure 6: Senior Portfolio Page (Source: PTW website)

A better layout for the Senior Portfolio page would have a smaller photograph with a caption to the side of the body of text, with the text be more concise in bullet point format. The layout of the Missions and Outcomes Page, as in Figure 7, was commended for its readability because it has different sized text, use bullet points, and underlined text differentiate the subcategories.

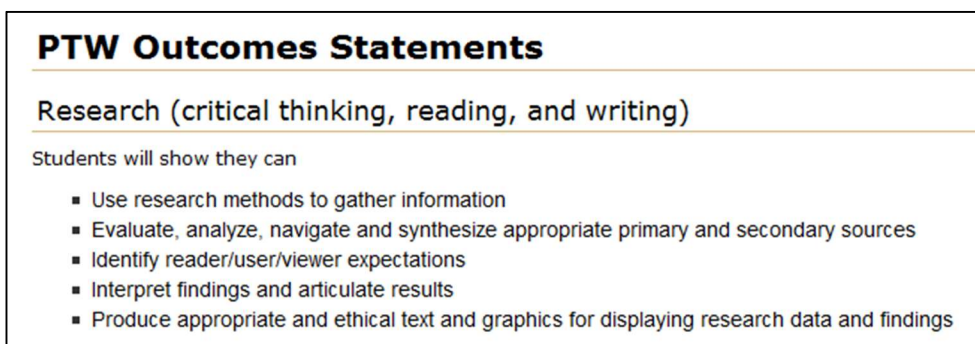


Figure 7: Missions/Outcomes Page (Source: PTW website)

RECCOMENDATIONS SUMMARY

These recommendations consider the feedback from the test participants and should increase the readability and understanding the Professional and Technical Writing Program. Below is a recap of the above recommendations.

- Change the wording of the “Professional and Technical Writing” homepage link to include the word “Homepage.”
- Change the color contrast with the different tabs.
 - o Adjust the background color when the mouse hovers over the tab.
- Make the wordle bigger – the visual appeal was good, but size was lacking.
- Create a separate tab for career information.
 - o Include bullet point information that is in the body paragraphs on the homepage.
- Create a tab for Minor/Major information similar to that shown in Figure 3.
 - o It would be suitable to include a link to the Degree Plans here.
- Change the format of the Senior Portfolio page to match the Mission and Outcomes page.
- Include information of what the PTW program is on the homepage to address the lack of user understanding of the PTW program.
- Move the Facebook link higher on the homepage.
- Change or get rid of the photo on the Senior Portfolio Requirements page.

CONCLUSION

We conducted five separate usability tests, all with student users. Our focus was placed specifically on addressing the design appeal of the site, the functionality of the site, and the content relating to career information and PTW program allure. User feedback was extremely positive regarding the site design and simplicity. The users reported especially liking the Mission and Outcomes page as well as the overall design of the homepage.

Our tests were designed using Think Aloud Protocol, audio and screen capture, along with a posttest interview to obtain a broad range of preferential and quantitative data. We set specific qualitative metrics for successful completion and measured the time it took to complete tasks during the test along with counting the clicks during each task.

On average, Three of five users successfully completed our usability test tasks. We have provided a comprehensive listing of our data in the Data and Findings section of this report along with more data in the appendix. In addition, we have outlined our main recommendations for site changes as a result of our research findings.

Lastly, we recommend future usability tests after any changes are made to the site. We must also acknowledge the need for a larger sample size of participants in future tests to realistically evaluate a statistical analysis of the quantitative metrics. This would allow for a more accurate analysis of the times and click counts along with aid in identifying additional obstacles or errors by garnering more preferential data.

APPENDIX A – QUALITATIVE DATA BY TASK

Task 1

Key Highlights	User 1	User 2	User 3	User 4	User 5
	Recognized the career / job outlook instantly	Nice introduction to the program Shows some benefits to students	Logo in middle is nice Overall looks good	Goes to Mission and Outcomes instantly Likes headers and question organization of Senior Portfolio page Liked faculty pictures	Liked the outcomes as a result of talking PTW courses PTW faculty page with background information and pictures good
Positive Highlights	Liked the homepage layout Liked the tabs All necessary information for contact is provided	Likes clarity of Mission and Outcomes Contact page good Background info on faculty page good A lot of information on Senior Portfolio, not a paragraph - nice question and answer format			
	Faculty page straight forward Tabs are easy to navigate				
Opportunities	*N/A - None listed during task	User did not read first paragraph on homepage	Saw the wordle "logo" but didn't actually register what it was saying / representing Saw the Facebook link as an advertisement	N/A	Text was too small under main header Too much information leading user to comment that she would not read it outside of testing Senior Portfolio page didn't make sense

Task 2

Key Highlights	User 1	User 2	User 3	User 4	User 5
Positive Highlights	Instant recognition of career information Job outlook statistic good Career information on front page is convenient Completed task extremely quick	Skills obtained information on Mission and Outcomes indirectly relates to careers and applying skills to a career The career information	Notifies the wordle graphic is jobs	Recognized Career information on homepage instantly Liked statistical career projection info	Liked the Facebook link at the bottom of the homepage
Opportunities	Did not recognize wordle Did not read all the information pertaining to careers and jobs	Did not complete task without prompt from moderator. Did not recognize wordle User looked at homepage initially and completely missed the career information Hard to find - gravitated to tabs instead of looking at content	User tried to use search function and had to be redirected back to PTW site User looked at the homepage and scrolled around on it, but did not see the career information - then came back to Mission and Outcomes and then came back to homepage Clicks homepage link accidentally which actually led to finding the career information	Didn't notice wordle right off the bat Did not like having to adjust head to read the wordle	Went to Mission and Outcomes first - assumption of finding career information there Note user associates "outcomes" with career Clicks homepage link accidentally which led user to stumble onto the career information Did not expect career information to be on the homepage Career information is too limited

Task 3

Key Highlights	User 1	User 2	User 3	User 4	User 5
Positive Highlights	Contact - is good, could send email to get necessary information	Finds the statement at the bottom of the home page to check the degree plan fairly quickly	Goes to Senior Portfolio instantly Notifies the sentence about seeing the program degree plan for course listings	Liked Mission and Outcomes format	N/A
Opportunities	Not sure where to go - very hesitant Homepage link - unexpected	Goes to mission outcomes to find classes / minors Checks homepage due to relying on a possible repeat from previous task	N/A	Did not know where to go and gave up rather quickly Picture on the Senior Portfolio page does not give user a "whole lot of information"	Expects information to be in Senior Portfolio requirements page User skims very quickly to find some link or bullet to call this information out

APPENDIX B – QUALITATIVE DATA POSTTEST INTERVIEW

Responses - Posttest Interview

Question	User 1	User 2	User 3	User 4	User 5
Question 1 How would you describe your first impression of the PTW website?	Straightforward site, efficient and easy to navigate Really like home page and the career introduction First impression very good	Visually appealing Nice presentation of what the program is, good pictures	Color scheme matches UCCS Aesthetically pleasing	Very clean, not a lot of random pictures Would like the wording. It it were bigger Site is easy to follow	Site is confusing - homepage doesn't make sense - wording is Tabs are really nice and focused, more tabs can be added
Question 2 What do you prefer when reading information: bullet points or extensive paragraphs? Why?	Bullet points - more efficient Eye is drawn instantly to what it is looking for Nicely written - easy to read Everything flows smoothly	Bullet points - more efficient Found everything Like to skip through quickly - and read less	Bullet points - more efficient Could not find minor / major requirements Blamed himself "user error"	Bullet points - more efficient Class requirements - make a list of bullet points of what needs to be	Bullet points - The Senior Portfolio section was hard to read Portfolio section needs bullets Needs major and minor information - tab on the top
Question 3 What kind of information did you expect to find, but were unable to find on the PTW website?		Hard to find career fields information because user reports not reading homepage			
Question 4 After going through the information how effective did the writing seem? For example, 'too jargoned, easily readable, etc.	Provide an overview of what classes need to be taken Possibly provide a link or something	No problems reading it	Didn't read much of anything on the site Tabs looked well put together (clinging format)	It was hard to find information on the homepage with the paragraphs Stuff in the bullet points easier to find	More focus should be placed on professional career Need career information here to know why PTW is useful - put in Mission and Outcomes page
Question 5 Share any thoughts you have on the Missions & Outcomes page. Be as specific as possible.	Designed nicely for impatient person Quick answers - pages are perfect Bullet points are helpful	Straightforward, organized, concise Very clear	Seemed "all good" Liked the bullet points	Really liked the Mission and Outcomes page Large fonts with bullet points under that	Sentences in this section were too long. It goes into too much detail Do not want to read the Senior Portfolio Requirements page, too At the same time - user reports Mission and Outcomes is too
Question 6 What more would you like to see or what changes would you make to the site?	Recommend a course listing Other than that - pretty good site	Changed the Senior portfolio requirements picture Nothing explains what is going on in picture Everything else was good	Easy to get through and stuff Make it more "user friendly" searching for the Degree Plan	Format the Senior Portfolio page like the Mission and Outcomes	Major and Minor requirements tab is needed Homepage paragraphs are hard to read - can't differentiate sentences Facebook link needs to be moved up so someone can see it without
Question 7 What is the PTW Program	*N/A - User was not asked this supplemental question	Cited: program provides opportunity for students in technical writing fields Did not seem to really understand what being a technical writer	About research methods and making stuff better for users *Had no idea	Classification of classes or Senior Portfolio Requirement User states "I don't really know."	User states "I don't really get it" *Had no idea

Task 1

Quantitative Measure	User 1	User 2	User 3	User 4	User 5	Average	Target	Difference
Time for successful completion (seconds)	n/a	88	19	4	7	29.5	30	0.5
Clicks to complete task	3	1	1	1	1	1.4	2	0.6
Number of Errors / Obstacles	0	0	0	0	1	0.2	0	-0.2
Time spent on target Page (Mission and Outcomes)	n/a	49	15	50	149	65.8		
Total Time on Task (seconds)	143	254	79	101	276	170.6		

Completion	User 1	User 2	User 3	User 4	User 5	% Successful	Target	Difference
Successful Completion	No	No	Yes	Yes	Yes	60.00%	100.00%	-40.00%

Click logs	User 1	User 2	User 3	User 4	User 5	Median	Key	
1st click	C	M	M	M	M	M	H	Homepage
2nd click	F	C	S	S	S	S	M	Mission/Outcomes
3rd click	S	F	F	F	H	F	S	Senior Portfolio Requirements
4th click		S	C	C	S	*	F	PTW Faculty
5th click					M	*	C	Contact Us
6th click					S	*	O	Other
7th click					F	*		

*No Median

Obstacles / Errors	Task 1	
User 1	None - User did not complete task but no obstacles prevented user from completion	
User 2	Non - User spent excessive amount of time on the home page keeping them from completing the task in the desired time frame	
User 3	None	
User 4	None	
User 5	Technical Writing link - Unexpected return to homepage	

TASK #1

TASK #2

Task 2

Quantitative Measure	User 1	User 2	User 3	User 4	User 5	Average	Target	Difference
Time for successful completion (seconds)	1	195	85	5	72	71.6	15	-56.6
Clicks to complete task	1	7	6	1	3	3.6	1	-2.6
Number of Errors / Obstacles	0	1	2	0	0	0.6	0	-0.6
Time spent on target Page (Homepage)	69	65	42	155	80	82.2		
Total Time on Task (seconds)	70	260	122	160	162	154.8		

Completion	User 1	User 2	User 3	User 4	User 5	% Successful	Target	Difference
Successful Completion	Yes	* No	No	Yes	No	40.00%	100.00%	-60.00%

*See Bias Note

Click logs	User 1	User 2	User 3	User 4	User 5	Median		Key
1st click	H	H	Other	H	S	H		H Homepage
2nd click		M	Other		M	M		M Mission/Outcomes
3rd click		S	Other		H	*		S Senior Portfolio Requirements
4th click		M	H			*		F PTW Faculty
5th click		F	M			*		C Contact Us
6th click		C	H			*		O Other
7th click		H				*		

*No Median

Obstacles / Errors	Task 2
User 1	None
User 2	User gave up just under 3 minutes into the task, was prompted to continue by moderator
User 3	Technical Writing link - Unexpected return to homepage
User 4	Technical Writing link - Unexpected return to homepage
User 5	None
	User expected information to in the Mission/Outcomes due to the interpretation of Outcomes as career outcomes

Task 3

Quantitative Measure	User 1	User 2	User 3	User 4	User 5	Average	Target	Difference
Time for successful completion (seconds)	31	185	27	33	21	59.4	30	-29.4
Clicks to complete task	Y	3	1	2	2	2.0	2	0.0
Number of Errors / Obstacles	1	0	1	0	0	0.4	0	-0.4
Time spent on target Page (Portfolio Requirements)	20	0	33	83	76	42.4		
Total Time on Task (seconds)	108	185	120	185	129	145.4		

Completion	User 1	User 2	User 3	User 4	User 5	% Successful	Target	Difference
Successful Completion	Yes	No	Yes	Yes	Yes	80.00%	100.00%	-20.00%

Click logs	User 1	User 2	User 3	User 4	User 5	Median	Key	
1st click	F	M	S	H	M	M	H	Homepage
2nd click	M	S	F	M	S	*	M	Mission/Outcomes
3rd click	H	H	C	S	F	H	S	Senior Portfolio Requirements
4th click	M		M	M	C	M	F	PTW Faculty
5th click	S		H	F	M	*	C	Contact Us
6th click	C			H	S	*	O	Other
7th click	H					*		

*No Median

Obstacles / Errors	Task 3	
User1	Technical Writing link - Unexpected return to homepage	
User2	None - User did not complete task due to excessive time taken to find target page/information	
User3	None - Technical Writing link was used by user this time on purpose to get to homepage	
User4	None	
User5	None	

TASK #3

APPENDIX D – INTERVIEW TRANSCRIPTS (17 PAGES)

TEST #1

Note: The spoken words of the test participants have not been altered. That is, the transcripts below are exact reflections of what the participants said. As such, numerous grammar errors and poor sentence structure exist within the following documents.

Test: User #1

Date: 11-04-16

Duration: 18:46

Time: [mm:ss]

Moderator: Alyssa

Note taker: John Michael

Background Questions:

- 1) No.
- 2) Yes, Computer Engineering and Computer Sciences.
- 3) Transfer programs or classes, staff, etc.

Tasks – [Time mm:ss]:

Task #1 [6:11 – 8:32]:

- **Start – Homepage – 6:11**
 - So I take it this is the homepage here, correct? So just by looking at it, it gives a pretty good intro to the top, as an idea of what they make a year. Job outlook is favorable, and you know, it a variety of areas. There is a good information nest on the front here. It has mission and outcomes at the top. I see senior portfolio requirement, faculty and means to contact us. Would you like me to explore anywhere else? [Moderator: "Sure"].
- **Click – Contact Us – 7:04**
 - I see that there is a definite email and address, and other fun facts. All the information I would need to contact someone here.
- **Click – PTW Faculty – 7:19**
 - It appears to be a pretty straight for format here where you can see which instructors are here work with the PTW program, you know, what courses they teach here, what background, interests, and personal interests. It's pretty easy to get to. They are bolded out so your eye kind of gravitates towards it if you need to find that area pretty quickly.
- **Click – Senior Portfolio Requirements – 7:57**
 - The Senior portfolio requirement, I mean I may not be at that point in, yeah, I haven't transferred to a four-year institution yet, but if I was looking for, you know, what do I need to make myself look like a good applicant for a job – there is that button there right at the top if I need a direct answer for finding that.

Test: User #1

Date: 11-04-16

Duration: 18:46

Time: [mm:ss]

Task#2 [9:03 – 10:12]:

- **Click – Homepage – 9:03**
 - o I see right here that you know what the income looks like - \$65,000 a year instantly on the front page. Also what the job outlook is, from 2012 to 2022, so that it is apparently a growing industry. Nearly 50,000 technical writers are employed in the United States. Scrolling down a little bit [reads 1st paragraph under visual jobs image aloud]. There a bunch of different fields here right on the front page, that is very convenient. You have the companies you work for, where they are taught, etc.

Task#3 [10:28 – 12:16]:

- **Start – Homepage – 10:28**
- **Click – PTW Faculty – 10:38**
 - o Ok. Well I'd imagine that if not on the front page then it would most likely be, let's see, maybe on the PTW faculty. Maybe that would give...
- **Click – Mission/Outcomes – 10:45**
 - o [Scrolls, searches, remains silent].
- **Click – Homepage – 10:48**
 - o Woops that was the home page, uh... [beginning to frantically move mouse].
- **Click – Mission/Outcomes – 10:54**
 - o There we go, I think I got it. I think it will be around mission and outcomes, I think around here we should get some idea of classes we need to take. [Scrolls gives up instantly].
- **Click – Senior Portfolio Requirements – 11:15**
 - o I was thinking maybe senior portfolio requirements. Although its talking about what you need in your body of works to display that, you know you are competent in your field, maybe it will kind of point you in the direction of what classes you were to take. [scrolls frantically].
- **Click – Contact Us – 11:35**
 - o I suppose you could send them an email about what classes you need to take.
- **Click – Homepage – 11:50**
 - o I don't think I missed anything on the front page about what classes I need to take. Let's see, um I don't think I know where to go actually.

Posttest Interview Questions – [12:38]:

- 1) **What is your first impression of the PTW website?**
 - I like it because it's straightforward. It's not busy, and for someone such as myself who always for look the fastest way to get an answer when going to a college page for what the program's like and what the outcomes are like, I really the homepage. It gives you a brief introduction to it.... I like how it's all right here. It gives you an outlook of what the program is and what types of jobs are available... Overall, my first impression of this website was very good.
- 2) **What do you prefer when reading information? Bullet points or paragraphs, and why?**
 - Bullet points because I feel it gives you the point across much more quickly, and it's much more didactic. You able to see what it is you are looking for; your eyes draw to it naturally.
- 3) **Would say the information seems easily readable (in terms of semantics and syntax), or was it too jargoned?**
 - I think it's nicely written. There's nothing there that makes it sound like an 18th century book. Everything is smooth and flowing. It's almost like you were thinking of a speech... Nothing gets in the way.
- 4) **What kind of information did you expect to see but did not see on this website?**
 - Earlier I was looking for classes to expect. This may just be an overview of what the course looks like. Maybe it maybe it makes sense that this isn't where you'll find all the classes.
- 5) **Share all your final thoughts on the Missions & Outcomes page that you maybe didn't share.**
 - It's designed very nicely for an impatient person much like myself. If I looking for quick answers, this page is perfect. I don't even need to first part; here's the bullet points right here. The Q&A format is helpful.
- 6) **What more would you like to see on this site?**
 - I would add a recommended courses list. Other than that, it's a pretty good site.

TEST #2

Test: User #2

Date: 11-05-16

Duration: 26:34

Time: [mm:ss]

Moderator: John Michael

Note taker: Jacob

Background Questions:

- 1) No.
- 2) Yes, Main website, checking the various departments, college of arts, engineering, and looking because I was applying for the school.
- 3) I would like that it is quite easy to go to wherever I want to go for it. I think a very useful thing on a page is frequently asked questions. Im usually good at finding what I am looking for. But when you are looking at a site, applying or something like that, sometimes there may be something specific to you, that you know, for any reason, FEQ usually provide that answer. I look for a search engine, I usually have problems with search engines, especially within a site because they usually don't direct you to what you are really looking for. To the right source, I usually don't use them except for Google and stuff like that.

Tasks – [Time mm:ss]:

Task #1 [7:26 – 12:40]:

- **Start – Homepage – 7:26**
 - o So right here I'm on the home page of the Professional Technical Writing Program, and I see they give a little nice introduction to it. So it pretty much gives us some good nice facts what the program is about. It continues down, I can see that they have other links to their social media page. [User 1st paragraph under Visual image and last paragraph on page out loud].
- **Click – Mission/Outcomes – 8:54**
 - o [Reads site information out loud]. Ok I like how clear it is, they give you a nice layout what their objective are. Ok they are showing all the many benefits students can receive with this program.
- **Click – Contact Us – 9:43**
 - o I'm just curious to see how to contact them. Ok so, I see this is Dr. Alex. And it provides the email address which is useful, phone, fax, mailing address. That's nice just in case I need more information.
- **Click – PTW Faculty – 10:09**
 - o They give us, pretty much, who is part of the faculty and I see they give us also the courses they teach. A little bit of background is nice. That is nice. You have a little more knowledge of how the faculty looks like.

Test: User #2

Date: 11-05-16

Duration: 26:34

Time: [mm:ss]

- **Click – Senior Portfolio Requirement – 10:46**
 - o What is this about? Ok, [reads aloud the first bullet]. That is quite straight forward. [Continues reading various bullets aloud]. I don't know, it looks pretty clean. There is quite a bit of information about this senior portfolio. I like it, it has this type of format that is, like, questions that come to your mind. It is not a huge gumbo of paragraphs, which is fine for the home page, but in this case I like how they organized their answers to the respective questions here. Ok, they have a part for resume and senior presentation and I see their contact for UCCS.

Task#2 [13:15 – 17:35]:

- **Click – Homepage – 13:15**
 - o Ok let's see.
- **Click – Mission/Outcomes – 13:22**
 - o I think I will see that in mission and outcomes. Let's see, research, I mean here they show the skills that students will have. Such as, ok, I'm going to try to find for a specific careers and earnings. Ok, I'm looking here, Ok, I'm seeing a lot of like, useful working and collaborative skills. I'm still looking for particular career fields. I mean, they all pertain to career skills. [Reads Mission and Objective Statement]. No I don't see it here.
- **Click – Senior Portfolio Requirements – 14:47**
 - o I'm going to look here. I guess it is a little tricky if I want to see for a specific career field. I don't know, I want to be a video editor or something like that. You see that this program does say about video editors, it's a little hard to find. More between the lines which is not a terrible thing, but... um, you don't see it immediately you probably have to read throughout the entire portfolio and mission and objectives to understand what they are.
- **Click – Mission/Outcomes – 15:30**
 - o You can then understand from that what career fields they are talking about. [Re-reads the Mission Objective Statement]. I think I have a pretty good idea what their fields are talking about. But I don't know exactly.

USER GAVE UP - PROMPTED BY MODERATOR TO CONTINUE LOOKING

- **Click – PTW Faculty – 16:10**
 - o Let's take a looks, ugh. I have to stay here though right?
- **Click – Contact Us – 16:13**
 - o I'm looking around, no let's go back to home.
- **Click – Homepage – 16:26**

Test: User #2

Date: 11-05-16

Duration: 26:34

Time: [mm:ss]

- Maybe at home they have it. [Reads first paragraph]. Ok I see here, Ok, careers in business and technical communication. I should have checked the front page. Oh and they have it here at the bottom. Ok, that's quite uh, [Reads aloud]. Ok, that's about writers. Ok, that is pretty satisfying I think. Well, immediately that was the first thing I noted, the labor bureau statistics, ok, and that's some good factual evidence about that.

Task#3 [17:50 – 20:55]:

- **Starts – Homepage – 17:50**
 - [Instantly notices last sentence on home page] Please browse our program and course contact list for information... let me see if I can find it on the front page, I might have over looked it. OH! I didn't even notice this picture shows all the careers here. That's cool. Anyway...
- **Click – Mission/Outcomes – 18:30**
 - So ok, right now I am looking at the mission outcomes page. I might be overlooking it, ok, I am going to the next page.
- **Click – Senior Portfolio Requirements – 18:53**
 - [Scrolls] Ok, I'm going to check the home page really quick here.
- **Click – Homepage – 18:57**
 - Ok, so I just read the first paragraph, here it says where they work at. Most courses are taught in electronic classes. [Reads aloud]. That gives me a fair idea of what courses I need, so I will need document designs. Though it is implying that there are other courses I will need, so I don't know where that is. Except, it does say check their degree plan, so I would check there. And the course listing, I would check there.

Posttest Interview Questions – [20:27]:

- 1) **What is your first impression of the PTW website?**
 - It looks nice; it's visually appealing. It has a nice presentation of what the program looks like. It's not just a bunch of words; there's pictures there.
- 2) **What do you prefer when reading information? Bullet points or paragraphs, and why?**
 - I prefer bullet points when it comes to giving out facts. Bullet points are more effective. It gives you information more efficiently. I think paragraphs work for giving a vague idea.

Test: User #2

Date: 11-05-16

Duration: 26:34

Time: [mm:ss]

- 3) Would say the information seems easily readable (in terms of semantics and syntax), or was it too jargoned?**
- I like to skim through everything.
- 4) What kind of information did you expect to see but did not see on this website?**
- I think I found pretty much everything. That how I am... I like to skip through quickly especially when there is a lot of reading. That's just how I am. Sometimes I overlook it. I think it was harder finding career fields, but because of the fact that I didn't finish reading the introduction. And it's very clearly written there.
- 5) Share all your final thoughts on the Missions & Outcomes page that you maybe didn't share.**
- I think that's all I can say. I didn't have any problems reading it. It was straightforward, organized, and concise. I liked it. I think because for me, I'm not that interested in the PTW program, but for someone who is interested in it, it's very clear.
- 6) What more would you like to see on this site?**
- I don't know; there's really not much that I would change. I'd probably change the senior portfolio requirement photo. [scrolls through senior portfolio page] It's a little foggy as a picture. There's not much to say what this picture is presenting. There's nothing that explains what's going on in this picture. Hmm. I wouldn't change anything. What they provided is enough.
- 7) Supplemental Question: What is the PTW Program?**
- This program provides opportunity to students who want to have careers in fields in technical writing, maybe engineering I guess, and it also is full of useful resources that might be beneficial for students who want to succeed in those careers. There was something about presentations.

TEST #3

Test: User #3

Date: 11-05-16

Duration: 14:56

Time: [mm:ss]

Moderator: Jacob

Note taker: John Michael

Background Questions:

- 1) I have not.
- 2) I think maybe, when I was searching for the school. I don't really remember.
- 3) I don't know, I can't really think about what I'd be looking for off the top of my head. Hopefully it would be easy to find, layout.

Tasks – [Time mm:ss]:

Task #1 [05:21 – 6:40]:

- **Start – Homepage – 05:21**
 - o Alright, I'm scrolling around, I like that little logo in the middle, that looks pretty cool. So it looks like there might be a Facebook ad or something.
- **Click – Mission/Outcome – 5:40**
 - o Let's check Missions / Outcomes, alright. That is pretty cool. So it tells you what you guys' goal is. Alright it has processes. Right on. Right on.
- **Click – Senior Portfolio Requirement – 5:55**
 - o Alright, this tells me what I would need for my senior portfolio, and if I knew what a senior portfolio was that would be useful information. So that looks pretty good.
- **Click – PTW Faculty – 6:12**
 - o So PTW Faculty, so now I am seeing the list of, what I assume to be the instructors for PTW. Cool cool. Alright. That looks pretty good.
- **Click – Contact Us – 6:28**
 - o And contact us. So there's an email, phone, and fax. Oh and mailing address. Cool, alright.

Task#2 [6:58 – 9:00]:

- **Start – Contact Us – 6:58**
 - o So I'll type in "jobs" into the search bar and see if that comes up with anything. Um, well it brought up Google search for jobs. Oh it brought up UCCS jobs and things. These look to be mostly jobs for dining and hospitality, and students and stuff.

USER OBSTACLE – USED SEARCH FUNCTION – USER WAS RE-DIRECTED BACK TO PTW

Test: User #3

Date: 11-05-16

Duration: 14:56

Time: [mm:ss]

- **Click – Homepage – 7:30**
 - o Oh, so I'm searching in this area? So ok, I'm looking for a good way to find jobs, so I'm just going around. [Scrolls up and down home page].
- **Click – Mission/Outcomes – 7:54**
 - o So missions and outcomes maybe? [Scrolls and reads big text out loud]. So I'm looking for professional technical writing. [Clicks link – ANOTHER OBSTACLE].
- **Click – Homepage – 8:18**
 - o Oh there we go; I just didn't read it. [Reads first paragraph out loud.] That's good to know, so, it was just right there if I actually read it. Oh and they are all right there in that fancy little, uh, graph thing. [wordle].

Task#3 [9:14 – 11:15]:

- **Start – Homepage – 9:14**
 - o [Reads last sentence on home page and is satisfied with the result].
- **Click – Senior Portfolio Requirement – 9:42**
 - o Ok so let's see. I wonder what the major is. Senior Portfolio requirement maybe? I wonder what senior portfolio is. No it is not. [Scrolls around]. Yeah this isn't telling me what I need. Or I'm missing it, which is entirely possible.
- **Click – PTW Faculty – 10:15**
 - o PTW Faculty... tells me about instructors, not really telling me about classes.
- **Click – Contact Us – 10:28**
 - o Contact us, doesn't tell me about classes....
- **Click – Missions/Outcomes – 10:34**
- **Click – Homepage – 10:35**
 - o Let's just go back home. Let's see here. Hmm. So they offer an array of courses, but. "our program degree plan," where is the degree plan? Should I search that?

Posttest Interview Questions – [11:20]:

- 1) **What is your first impression of the PTW website?**
 - o It looked pretty good. It's aesthetically pleasing, matches the UCCS color scheme. I guess that is good.

Test: User #3

Date: 11-05-16

Duration: 14:56

Time: [mm:ss]

- 2) **What do you prefer when reading information? Bullet points or paragraphs, and why?**
 - I guess it depends, bullet points are easier to quickly consume, but if I want a lot of information on just one thing then a paragraph would be good, but I guess bullet points are better, quicker.
- 3) **Would say the information seems easily readable (in terms of semantics and syntax), or was it too jargoned?**
 - The stuff I did read seemed all good. I understood all of it, I think
- 4) **What kind of information did you expect to see but did not see on this website?**
 - I clearly couldn't find the minors and majors requirements. I guess that could be user error, that is entirely possible.
- 5) **Share all your final thoughts on the Missions & Outcomes page that you maybe didn't share.**
 - Well, in all honesty, I wasn't sure that would be expected. I browsed through all the tabs and they looked well put together.
- 6) **What more would you like to see on this site?**
 - It looks pretty slick, let's see. It tells you your missions and objectives. Everything I wanted to know and I like the bullet points. So yeah, it looks good. It's easy to get through and stuff. If I was searching the program degree plan I'd make it a little more user friendly, but then again, if I were in the PTW program I guess I would know that stuff.
- 7) **Supplemental Question: What is the PTW Program?**
 - Um, what I'm reading you guys use research methods, and try to make stuff work better for users, using that research information.

TEST #4

Test: User #4

Date: 11-08-16

Duration: 23:44

Time: [mm:ss]

Moderator: Jacob

Note taker: Jacob

Background Questions:

- 1) No I haven't.
- 2) Uh, yeah, engineering and academic advisement.
- 3) Just like specific details of what I am trying to look for I guess.

Tasks – [Time mm:ss]:

Task #1 [7:58 – 10:39]:

- **Start – Homepage – 7:58**
 - o Ok, so I'm going to click on the Missions/Outcomes.
- **Click – Mission/Outcomes – 8:03**
 - o Ok, so it's nice that they like state what their mission and objectives are. And all what the different headers are under the outcomes statements. And it has another header and more detail. Ok. Then what am I trying to do?
- **Click – Senior Portfolio Requirements – 8:58**
 - o Oh and it's nice that there is a question and answer in the beginning. So if I had a specific question I could easily find the response to it. And I like how there are also headers to further organize the questions. [Scrolls]. I see that the headers are not as large, like they are not as easy to find as you are scrolling down.
- **Click – PTW Faculty – 9:58**
 - o Faculty? It's nice that there are pictures, sometimes you don't really remember the names... and the courses they teach. [Scrolls]. And then I like how there is a contact page as well.
- **Click – Contact Us – 10:24**
 - o With a link to the email. Yeah.

Task#2 [11:10 – 13:50]:

- **Start – Mission/Outcomes – 11:10**
- **Click – Homepage – 11:15**
 - o So I like at the home page, how automatically, that um, the median income for technical writers and where they found that, like the US department of labor. Also the year is good. And how much it will increase as well. That's a good way to see if it will continue growing or not. [Scrolls down]. What different areas the

Test: User #4

Date: 11-08-16

Duration: 23:44

Time: [mm:ss]

technical writing goes in to. Yeah. Uh. Letters, reports, journal articles... And then what fields they work in, designers, technical experts... Uh that's it. Oh I guess all these [wordle image] are there. Um, Like the red ones tend to stand out more, the yellow ones. At first you go for the lateral ones that are easy to see, where the other ones you have to change your head position. The middle ones more. There is a lot of them there.

Task#3 [14:00 – 17:05]:

- **Start – Homepage – 14:00**
- **Click – Mission/Outcomes – 14:08**
 - o Ok, so I guess like before with the question and answers. This is really nice to see like an overview almost. Mission and outcomes.
- **Click – Senior Portfolio Requirements – 14:33**
 - o [Scrolls]. I like how the questions are shorter, but not like, super drawn out, so you can get questions to specific answers. Well, I mean the picture doesn't give me a whole lot of information. I guess there is a presentation along with the, uh.
- **Click – Mission/Outcomes – 15:56**
 - o Um. [Scrolls].
- **Click – PTW Faculty – 16:06**
 - o So it's like specifically other classes? Uh, it's like just the classes that maybe if there was something that like was for the requirements maybe.
- **Click – Homepage – 16:54**
 - o I'm not sure where classes, requirements are. Ok.

Posttest Interview Questions – [17:17]:

- 1) **What is your first impression of the PTW website?**
 - o It's very clean. It's not as like, with a lot of other department websites, there are a lot more pictures, but that doesn't really apply to this one because it is so specific. That doesn't really apply to this one because, it's so specific. When you like, go to engineering, like it has a lot of random engineering pictures and stuff like that. If the pictures help the understanding, like, with engineering you can see the specific classes, like a picture of a catapult or something like that you can see what you are doing. But I do like the picture here [wordle] if it was bigger, like if it filled up the space a little more. Otherwise it [the site] is clean, simple, and easy to follow.

Test: User #4

Date: 11-08-16

Duration: 23:44

Time: [mm:ss]

2) What do you prefer when reading information? Bullet points or paragraphs, and why?

- I like bullets. It's easier to find what you are looking for.

3) Would say the information seems easily readable (in terms of semantics and syntax), or was it too jargoned?

- The class requirements. Maybe just like a bullet point list of what you need to accomplish. Yeah.

4) What kind of information did you expect to see but did not see on this website?

- Some things you had to search for more than others I suppose? If more it was like, like the stuff that was in bullet points were easier to find and follow, rather than at the beginning of it [Homepage] it is more paragraphs.

5) Share all your final thoughts on the Missions & Outcomes page that you maybe didn't share.

- I like how they are separated into the different areas. It [Mission and Outcomes page] kind of starts with the overall statement and the specific outcomes. And I like how it goes into further bullet points with examples and things like that. Like it's not just one big, like, like, all the same font, like it's easier to read. There's these large fonts with bullet points under it and bullet points under that.

6) What more would you like to see on this site?

- Maybe like going in between these specific topics [Tabs on page] would keep it a single, like, format. Like this [Mission and Outcomes page] format and this format [Senior Portfolio Requirements page] you could have that nice bold header be consistent.

7) Supplemental question: What is the PTW Program?

- It's either like a certain classification of classes and senior portfolio requirement? Um, well. I don't really know.

TEST #5

Test: User #5

Date: 11-09-16

Duration: 27:32

Time: [mm:ss]

Moderator: John Michael

Note taker: Jacob and Alyssa

Background Questions:

- 1) No.
- 2) No.
- 3) Um, more like, as a student, more into the like, what the majors are like and stuff in the front, instead of searching everywhere.

Tasks – [Time mm:ss]:

Task #1 [7:20 – 11:56]:

- **Start – Homepage – 7:20**
 - o Ok, so. The main place I would go is Mission and Outcomes.
- **Click – Mission/Outcomes – 7:27**
 - o [scrolls]. Do you want me to read? Um, yeah I like how the main mission and everything is on the front piece. [Scrolls and reads silently]. Right now I am trying to see if this works with what I am looking at. It's very awkward. Um yah, so I like how they, we can see what the outcomes when they take the class. I don't think we really need this, [pointing at small text under main bullets]. It kind of makes it awkward and its really small in the center there. [Scrolls]. Yeah actually it looks pretty good, yeah. But there is a lot of information in here. I would just go through a few and just leave it. Do you want me to go back? [Moderator prompts to continue exploring].
- **Click – Senior Portfolio Requirements – 9:56**
 - o Um, this is more for seniors. So it's like where can you really go? [Clicks Professional and Technical writing link – Home page link]. What?
- **Click – Homepage – 10:17**
- **Click – Senior Portfolio Requirements – 10:22**
 - o [Scrolls]. So um, this one is more for seniors, so I am thinking this is more for seniors. It doesn't make a little bit of sense, so it's more like on mission and outcomes.
- **Click – Mission/Outcomes – 10:58**
 - o Like putting some of the basic points here, instead of putting, maybe put in another place some of them.
- **Click – Senior Portfolio Requirements – 11:10**

Test: User #5

Date: 11-09-16

Duration: 27:32

Time: [mm:ss]

- After you get into the program, then you would be more used to the stuff and then you can figure this out. Because, if I am just going to the website I wouldn't be going to the senior portfolio website yes?
- **Click – PTW faculty – 11:30**
 - [Scrolls]. Yeah, I like it. It has all the backgrounds and the picture, more interactive.

Task#2 [12:15 – 14:57]:

- **Start – PTW Faculty – 12:15**
- **Click – Senior Portfolio Requirements – 12:17**
 - [Scrolls]. Oh it should be in Mission and Outcomes.
- **Click – Mission/Outcomes – 12:25**
 - [Scrolls]. Alright, I think. This isn't really reflecting what is going to come out. It just says the skills you're are going to get out of it. But it doesn't really talk about the professional you can get out of it. Yeah it doesn't give anything about careers, it just gives what you are going to learn, what's going to come out of these classes. That is the only place we can find outcomes. [Hovers over all tabs], it's not in here, in here, it's not in here. I think that's, uh, a little bit limited.
- **Click – Homepage – 13:37**
 - Oh it's right here. On these. [reads first paragraph briefly]. Um, so on the first focus you can't really tell it talking about, like the price label. I was not even thinking it would be here. It just talks about the program, then it has this information in here. No, I didn't expect that. This one says the UCCS, that is the PTW program, but it doesn't include anything. I kind of like how you have the Facebook in here so you can find more, but I think it is a little bit limited. You can have more. Yeah.

Task#3 [15:21 – 17:30]:

- **Start – Homepage – 15:21**
 - [Scrolls]. So like I'm looking right into the site, I can't find it anywhere.
- **Clicks – Mission/Outcomes – 15:38**
 - [Scrolls] It's not here.
- **Clicks – Senior Portfolio Requirements – 15:42**
 - It's not going to be in here.

Test: User #5

Date: 11-09-16

Duration: 27:32

Time: [mm:ss]

- Clicks – PTW faculty – 15:48
- Clicks – Contact Us – 15:50
 - o Is it in there by the way? [Senior Portfolio Requirements]. I don't know if its in there.
- Clicks – Mission/Outcomes – 16:03
- Clicks – Senior Portfolio Requirements – 16:10
 - o [Scrolls]. Because this is the senior portfolio requirement. I'm thinking maybe it has some information. It does... [Reads]. I'm not sure where to find that, it's kind of hard. I guess it's not in here maybe? Yeah, I would just, I wouldn't even go into here.

Posttest Interview Questions – [17:40]:

- 1) **What is your first impression of the PTW website?**
 - o It's kind of confusing. So, I kind of like how they have the front page mainly focused. Looking at it something doesn't make sense. I think the center part [wordle] more, so I can see the relationship of it. What it is saying. I think the information on the tabs are really focused. I think more can be added here [to the tabs].
- 2) **What do you prefer when reading information? Bullet points or paragraphs, and why?**
 - o Bullet points. I was looking at this one [Senior Portfolio Requirements] and it was really hard to continue reading this. If I look at it, it's kind of hard to find what it's going to point too. It should have bullets.
- 3) **Would say the information seems easily readable (in terms of semantics and syntax), or was it too jargoned?**
 - o I would like the major and minors – it should be on the top [Tabs], there should be a section in there and I cannot find where it is.
- 4) **What kind of information did you expect to see but did not see on this website?**
 - o More focus on its professional career rather than just on the front page have it on the tabs. Because if I want to take this class I want to know what is it useful.
- 5) **Share all your final thoughts on the Missions & Outcomes page that you maybe didn't share.**
 - o If I was to go into this website [Mission and Outcomes] I would be looking at really short sentences. That is, like little, and there is like a lot of information.

Test: User #5

Date: 11-09-16

Duration: 27:32

Time: [mm:ss]

Because if you go to research [First main header], being students I think we would know a lot of this stuff. So, it's going too much detail in this part. Especially on this one [Senior Portfolio Requirements]. On this one I would on want to read. So the main thing with Mission, it is really tiny. It is more focused on the [headers] than the main [Mission statement]. As I said, I want the [information under the headers] to be a little less. When I was looking at the research part, I feel like it is not going to specific main points, but like, including everything else in there, too generalized.

6) What more would you like to see on this site?

- I would like major and minor requirements in here. And more into possible careers. If I go right into [Mission and Outcomes] my main focus is [mumble unable to hear what she said]. I want on the tabs major and minors, careers, and something else, I don't know what, but something else in here. This one [wordle] is, kind of the way it is organized, it is hard to read. And the [home page paragraphs] are hard to read. You can't, like differentiate the sentences. Also, [Face book link] move it up to here [top of page] because, if someone doesn't move down to the bottom of the page, if somebody does not want to read the [home page] then they are going to skip it and they won't see the link.

7) Supplemental Question: What is PTW Program?

- I didn't really get it. I think it's more like research, practice, conventions. I think it something more focused on these main skills [Mission outcomes page]. Yeah.

PRE-TEST PAPERWORK

- Have user sign Consent Form
- Go over expected time - test should last roughly 30 minutes

PRETEST INTRODUCTION:

- **Who we are:** We are students at UCCS taking the Professional Technical Writing (PTW) User Experience course and are conducting this research in an effort to benefit future UCCS students in their educational endeavors.

[Include pertinent personal information to put participant at ease].

- **Why we are here:** Specifically, we are conducting a usability test to measure the UCCS Professional Technical Writing website under specific objectives outlined by the PTW department.

- **Outlining user's role:** You will be asked to perform various tasks. The completion of these tasks is not a reflection of your abilities. This process is not designed to test participants, but to test the site's functionality and appeal.

- **Think Aloud Protocol:** During some of the tasks, you will be asked to "Think Aloud" while you perform them. I [test moderator] will show you a short video on what it means to think aloud for this test, and explain the protocol in more depth before the test begins.

- **Posttest plan:** At the end of the testing we ask that you complete a short posttest interview about your experience.

- **Disclaimer:** This test is being recorded through screen capture software. Again, this is part of the testing and data collection process and in no way is intended to be used as an evaluation of you, the user, but to help us to identify issues that need correcting with the site. Your participation will be kept anonymous, and we encourage you to interact with this site in a relaxing and natural manner as best as you can.

- **Thank the participant:** We want to thank you for your time and participation in our test. Your experience today will have a positive impact on the direction and future of the PTW site and will improve the experiences of future students.

[Move on to Think Aloud Protocol Script and Video]

THINK ALOUD PROTOCOL

In this test, we are asking that you follow a Think Aloud Protocol. This procedure entails verbally expressing your thoughts, motivations, and reactions while you perform various tasks assigned in the test.

For example, if you were asked to go online and search for a new pair of shoes using a search engine, you would verbally express what actions you are taking as you perform that task. Suppose while performing the task you found something unpleasant about the search function. Perhaps you could not see the pictures of the shoes because they were too small. Think Aloud Protocol would have you verbally express your frustrations and thoughts when encountering these kinds of obstacles. Perhaps you find a button that allows you to enlarge the picture. At this point you would verbally express that you like this function of the website, and explain how it fulfills your needs.

Think Aloud Protocol can be somewhat awkward at first, but it boils down to simply expressing your thoughts verbally as you perform whatever actions we have assigned to you. We may offer a subtle reminder during the test to continue using Think Aloud Protocol given we acknowledge the difficulty of trying to complete tasks while simultaneously talking your way through them.

Here is a short video that gives a quick example of what Think Aloud Protocol like. Again we want to stress that your personal thoughts and expressions during this process are not being tested. The information we glean from your thoughts and expressions will be used to evaluate strengths and deficiencies of the professional technical writing website.

THINK ALOUD VIDEO LINK

<https://www.youtube.com/watch?v=SzPtKj10zA>

Usability Test for the Professional and Technical Writing Program Website

Welcome:

Thank you for taking the time to participate in our User Experience Test.

You will be asked to complete a consent form and nondisclosure agreement form. After all paperwork is complete, we will begin the testing session.

Testing Session:

You are participating in a test of the Professional and Technical Writing website. Your test moderator will guide you through this process. Please know this test is in no way designed to measure your abilities. The sole purpose is to measure the website. We encourage you to relax and have fun.

Your test moderator will walk you through the progression of the test step by step, ask you a few initial questions, and assign specific tasks for you to complete. Once the task phase of the test is complete, she will conduct a short interview of your experience.

We encourage you to be open and honest with your feedback during the test session. You will be asked to “Think Aloud” while completing tasks. Your test moderator will cover this protocol in more depth before the testing begins.

Your time and feedback will be extremely valuable and will have an impact on future students of the UCCS Professional and Technical Writing Program.

Your participation today will result in entry for a \$25 Amazon gift card. We thank you for your time today.

Sincerely,

Usability Team JMAJ

ENGL 3860 Fall 2016

APPENDIX H – TESTING - CONDUCTING THE USABILITY TEST

CONDUCTING THE TEST

Below are the specific questions, tasks, posttest interview questions, and performance metrics for our user experience tests. To maintain consistency across all user tests, the Phase I-III material will be read verbatim to each participant.

PHASE I: BACKGROUND

	User Experience and Background Questions
1	Have you previously, before today, visited the UCCS PTW website?
2	Have you visited any other UCCS departmental websites previously?
3	What kind of information do you/would you look for when visiting UCCS department websites?

PHASE II: TASKS

	Tasks – In the Chronological Order the User Will Complete
1	You have just run across this website. You are a student who is interested in learning more about Professional and Technical Writing - PTW. Explore the site to get a feel for the program.
2	In this task, you are interested in the career and future opportunities the PTW program has to offer. You are also curious about earnings potential, and specific job titles. Explore the site to find out what kind of information is available.
3	Now you are wondering about what kind of requirements and classes are needed for the PTW minor or major. Explore the site to find out answers to your curiosities.

PHASE III: POSTTEST INTERVIEW QUESTIONS

	Posttest Interview Questions – Flexibility will be given to moderator to vary slightly off topic as a result of observations during the test
1	How would you describe your first impression of the PTW website
2	What do you prefer when reading information: bullet points or extensive paragraphs? Why do you prefer [...]?
3	What kind of information did you expect to find, but were not able to find on the PTW website?
4	After going through the information, how effective did the writing seem? for example too jargoned, easily readable, etc.
5	Share any thoughts you have on the Missions & Outcomes page. Be as specific as possible.
6	What more would you like to see or changes would you make to the site?