Usability Study of the Elizabethtown College Student

Rights and Responsibilities Web Page

EN282 Technical Writing

Dr. Moore

7 December 2018

Dr. X
Director of Student Rights and Responsibilities
Elizabethtown College
One Alpha Drive
Elizabethtown, PA 17022

December 7, 2018

Dear Dr. X:

The Student Rights and Responsibilities team of Dr. Moore's Technical Writing course presents to you our usability testing recommendation report. This report is the result of our usability study of the Student Rights and Responsibilities website, conducted from September 2018 to December 2018 under Dr. Moore's guidance.

This report was prepared by the Student Rights and Responsibilities team and includes our testing methods, our results, and our recommendations. We hope that this report will assist your office in making future decisions concerning the Student Rights and Responsibilities website.

Thank you for the opportunity to conduct usability testing on the Student Rights and Responsibilities website.

Sincerely,

The Student Rights and Responsibilities Team:

Abstract

A usability study was conducted on Elizabethtown College's Student Rights and Responsibilities website through the participation of five Elizabethtown College students. Each student was prompted with pre-test and post-test questions, along with four fictitious circumstances to help determine the navigability and readability of the current website. The solutions to each prompt could be found on the website. The duration of each task's success or failure was recorded along with all comments, questions and concerns each participant produced through the duration of the tests. Recommendations were then suggested based on the results of the individual studies and the trends seen throughout the collective data.

Keywords: usability study, navigability, website study, readability, usability testing

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Executive Summary

Dr. X, Director of Student Rights and Responsibilities at Elizabethtown College, asked our group to determine the effectiveness of the Student Rights and Responsibilities web page on the College's website. Dr. X's concerns included the accessibility of the Student Handbook, the labeling and placement of tabs on the webpage, and the amount of text on each page. We have conducted a usability study of the web page to find its strengths and weaknesses.

With five pre-test questions, five post-test questions, and four main tasks, our group examined five voluntary participants' use of the web page to find patterns of difficulty. Participants had no prior areas of study or experience with the website. None of the participants were familiar with the Student Rights and Responsibilities web page or the Student Handbook.

Usability Testing

Each task involved using the Student Rights and Responsibilities web page. We asked participants to find information in the Student Handbook, resources for friends and students suffering from substance abuse, and information about student conduct violations. When we analyzed our data, we noted the following difficulties the participants had while navigating the website:

- Participants often had trouble reading through blocks of text.
- Participants were unable to use search terms to find information on the site.
- Labels on sidebars and tabs did not always lead participants to the information they expected.

Although participants reported some slightly different levels of difficulty, they rated the web page at an average difficulty of 5 out of 10.

Major Recommendations

Based on the actions and comments of our participants, we have concluded that the web page could benefit from some adjustments to its presentation and navigational features. Our recommendations derived from our participants' performances on each of the tasks and the common problems they reported. To improve the website, we suggest the following recommendations:

- Use bullets, images, charts, and infographics to break up long pages of text

- Incorporate keywords that students are most likely to search for to optimize the search tool's effectiveness
- Reword headings, tabs, and labels with clear meanings

Our group believes the above suggestions are the most effective solutions to the main issues we found while analyzing our participant data. By increasing clarity and making information easier to locate, these recommendations can help make the web page more navigable and user-friendly.

Introduction

The Director of Student Rights and Responsibilities at Elizabethtown College, Dr. X, realized her departmental website needed some upgrades. Students were not clicking onto her pages as often as she hoped, and her numbers of active user sessions were decreasing. She thought the navigability of the pages, links, and tabs could be the issue, but she hesitated to change the structure of her web pages without the data to back up her concerns.

Significance and Rationale

Dr. X website, the Student Rights and Responsibilities web page, is an asset of significant information to Elizabethtown College. The Student Handbook, Student Code of Conduct, additional resources, and the Student Conduct Annual Report, all listed on the current website, serve as important resources for those who may need additional support or reassurance of the College's policies. According to Dr. X, every student enrolled at the College should be familiar with, at least, the Student Handbook. In turn, Dr. X wanted to find out why students were not engaging with her website.

In direct relation to Dr. X's concerns, this usability study serves as a platform to uncover the reasons for the decreased web traffic on the Student Rights and Responsibilities web page. Are students having problems navigating to and from the linked web pages? Is the text too lengthy for students, faculty, staff, and parents to read? What would students like to see listed on the web page? Our usability study seeks to find the answers to these crucial research questions.

Usability Study

Through our usability study on five current Elizabethtown College students, we collected data on the usability of specific aspects of the Student Rights and Responsibilities web page. We created and conducted a series of pre-test and post-test questions, along with four scenario-based tasks to collect data on the usability of the website. Our test plan ranged from questions on the navigability of the web page to tasks asking participants to locate specific items in the Student Handbook.

This usability report combines our analysis with our recommendations for Dr. X. We consulted with Dr. X about her concerns and ideas, and we turned her assumptions into a quantifiable study. With her main concerns in mind, we focused our testing methods on the areas of the website that needed higher ratings and stronger explanations. We hope to provide factual evidence to support her assumptions of these recurring issues.

Overall, we took Dr. X's concerns and paired them down into research questions to be analyzed and information we could use to recommend a future, easily navigable, version of the Student Rights and Responsibilities web page.

Methods

Students were asked to participate in a usability test on the current Student Rights and Responsibilities web page. The current website features a mixture of content and navigational tabs and links, which is pictured below in Figure 1. Based on the content and navigational structures of certain sections of the web page, students were asked to complete various tasks to determine the overall usability of this current website's structure. See Figure 1.
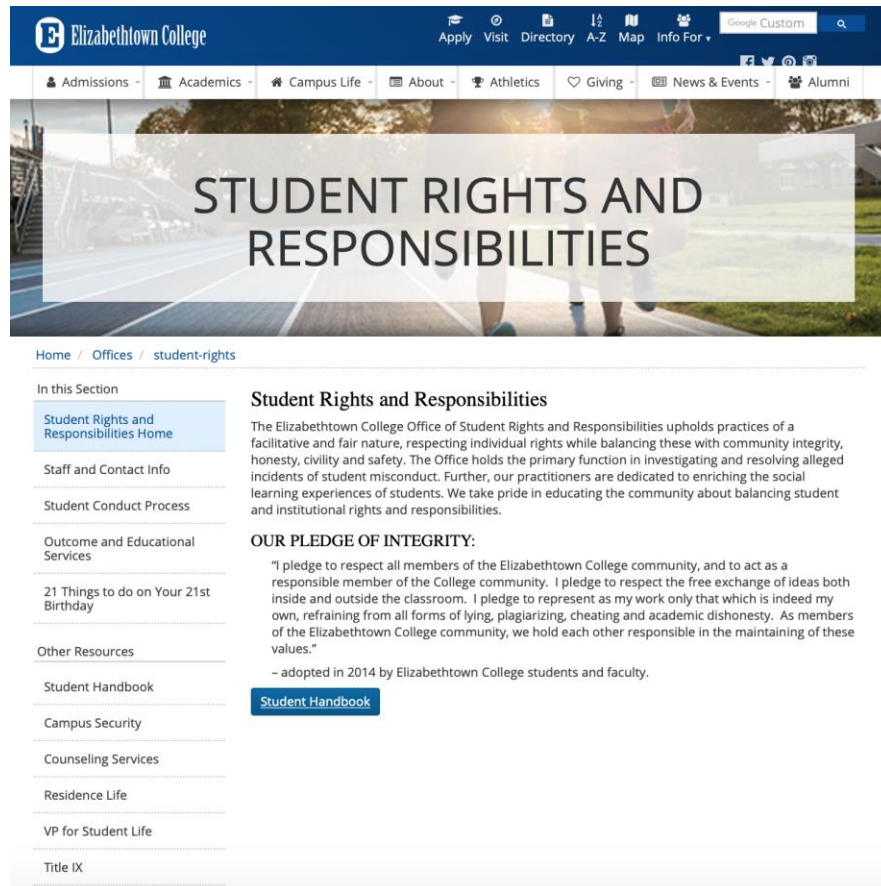

Figure 1

The questions and scenario-based tasks students were asked to complete derived from a series of research questions that our team considered throughout the project. Our research questions for the Student Rights and Responsibilities web page usability study started as follows:

- Are the contents of the Student Rights and Responsibilities web page organized in an understandable structure that is simple and accessible to navigate?
- What steps do students take when accessing the Student Handbook through the Student Rights and Responsibilities web page?
- How easily do students find the specific information they are asked to look for?

- What challenges do students have in finding information about counseling services programs on the page?
- What obstacles do users face when trying to navigate to the pages listed in the provided tasks?
- What questions do students ask as they work through each scenario?
- How do the subjects feel about the amount of time it takes them to locate the information for the four scenarios (if they finish them)?

Conducting the Usability Tests

Students began our test by filling out a consent form that guaranteed the validity of our data collection methods and proved that the enrolled participants are participating on a completely voluntary and private basis. We did not ask participants to perform any tasks that would cause any discomfort to them.

With our five volunteers, we planned to collect our data manually through pre-test questions, a scenario-based test, and post-test questions by taking notes on a sheet. The participants orally answered the pre-test and post-test questions, with the task moderator recording their answers.

Additionally, we gave the participants a set of four, believable scenarios and asked them to navigate to the answers. During the scenario-based tasks, students performed the tasks and were asked to "think-aloud," while the task moderator manually collected information. This information includes the duration it took each participant to complete each task, accompanied with their thought-out questions, comments or concerns.

Asking Pre-Test Questions

To start each usability test, the test moderator asked the participants a series of pre-test questions about their prior engagement with the Student Rights and Responsibilities web page. These pre-test questions included the following five inquiries:

- What is your participant number, age, gender and major?
- What Elizabethtown College web pages do you visit the most?
- What specific information would you expect to find on a 'Student Rights and Responsibilities' website?
- Have you visited the 'Student Rights and Responsibilities' website before? If yes, were you easily able to find the information you were looking for?
- When looking up information on the Internet, will you persistently view a web page for information until it is found or quickly look at other websites for your information?

Testing through Scenario-Based Tasks

Next, members of our group presented the participants with four scenario-based tasks, with each task mimicking some of the scenarios students could likely find themselves in while visiting this website. All the information needed to solve each task could be accessed through the Student Rights and Responsibilities web page. The four scenario-based tasks we asked our participants to complete are listed as follows:

- Please locate the Student Handbook from the 'Student Rights and Responsibilities' landing page. Once located, identify the minimum number of Health and Safety Inspections Residence Life can conduct each semester.
- You have violated the Student Code of Conduct. You now have a Formal Resolution meeting to attend in response to your violation. Who conducts a Formal Resolution meeting?
- Your friend is struggling with substance abuse and you need to make a referral to Counseling Services. Where can you locate more specific information to make a referral?
- You are struggling with alcohol and substance abuse. Locate two services available on the website to assist in finding help.

Asking Post-Test Questions

To conclude each usability testing session, the test moderator debriefed with the participant with a series of post-test questions, which are listed below. Members of our group asked the participants the post-test questions upon completion of the usability study, regardless of their successes or failures. Our post-test questions included the following five inquiries:

- How would you rate your level of difficulty using the Student Rights and Responsibilities web page?
- Would you recommend the Student Rights and Responsibilities web page to someone who had a problem?
- Were there any tasks you found harder to complete than the others? Why do you think that is?
- If you happened to find yourself in any of these fictitious situations, would you turn to the Student Rights and Responsibilities as a resource?
- Do you have any additional comments regarding the Student Rights and Responsibilities web page?

Analyzing Our Findings

Once our team completed the five tests required, we compiled the notes and answers collected from each study and analyzed them for trends and patterns. Based on our findings, we made recommendations on how to efficiently fix any recurring trends and on how to easily update the

content, organization, and navigation of the Student Rights and Responsibilities web page to suit its audience's needs.

Results

Upon analysis, our data showed that none of the participants in this study had visited the Student Rights and Responsibilities web page or the digital version of the Student Handbook before. At the end of the study, participants rated the web page at an average difficulty of 5 out of 10, with 10 being the hardest. Recorded below are the commonalities and trends noted among our individual participant data for each task, as well as the notable comments the participants made throughout each task.

Our Cumulative Results

The first three tasks had similar levels of success, while only one participant managed to succeed in completing Task 4. A chart containing the average time of completion for each individual task and the percentage of participants who successfully completed each task is listed in Figure 2 below. See Figure 2.

	Task 1	Task 2	Task 3	Task 4	Total
Average Time	1.37 minutes	2.00 minutes	1.05 minutes	0.50 minutes	1.23 minutes
Task Completion	80 percent	80 percent	80 percent	20 percent	65 percent

Figure 2

Overall, the participants expressed the greatest difficulty in reading lengthier pages of information and finding the appropriate tabs for specific sections. Additionally, participants felt daunted by the large amount of information presented on any given web page on the Student Rights and Responsibilities website. Students also frequently searched in the incorrect pages or tabs before finding the answers they needed.

Task 1: Student Handbook

Eighty percent of participants completed Task 1, with a low to moderate difficulty. Without counting the participant who failed the task, the average time participants spent on the task was approximately 1.37 minutes or 82 seconds.

Participant 5, who failed the task, had no trouble locating the Student Handbook, but was unable to answer the specific question asked about the Office of Residence Life's room inspection policies.

Task 2: Student Code of Conduct

Eighty percent of participants completed Task 2, each with varying levels of difficulty. The average time it took participants to complete the task is approximately 2 minutes or 120 seconds. The participants who struggled with this task each struggled for various reasons. Participant 1, who failed the task, noted that the Student Code of Conduct section is "a very lengthy section that is difficult to read."

Participant 2 initially tried finding the answer by searching for the term "violation" on the web page, but it produced no results. She noted that although she eventually found the information, generally, if she cannot find information on a page by immediately using "Ctrl+F" keyword search, she will look elsewhere for the answer.

Participant 5 completed the task but clicked on multiple incorrect tabs before locating the Student Code of Conduct section. The participant stated that in general, the answers were "simple, but not accessible."

Task 3: Counseling Services

Eighty percent of participants completed this task, and most of them did so with little to no difficulty. The average completion time for these participants was approximately 1.05 minutes or 63 seconds. The participant who was not able to find the answer found the navigation tab titles unclear and ended up searching in the incorrect areas of the website.

Participant 2 had moderate difficulty with the task. Because her first instinct was to glance at the top and bottom, she did not notice the "How to Help a Friend" tab immediately.

Task 4: Student Resources

Only 1 out of the 5 participants was able to successfully complete this task without any guidance. The participant who completed the task did so with a time of approximately 0.50 minutes or 30 seconds. The most common obstacle in this task for the participants was understanding to click on the tab, "Outcome and Educational Services," which they found to be misleading.

Participant 4, who failed the task after almost 8 minutes, spent most of her search time looking under tabs such as "Student Wellness" and "Counseling Services." Upon learning the location of the answer, she was confused about the relevance of the page heading. Similarly, Participant 5 searched on the "Student Wellness" and "Counseling Services" pages for the information, but eventually failed.

Participant 1 failed the task after 12 minutes, which she attributed to the fact that she was unsure where the tabs were taking her. Due to the trouble she had completing the task, she said, "I would recommend reorganizing certain content sections because I, personally, would not spend more than three minutes on this site looking for the information I needed."

Participant 2 attempted to find the answer by searching on the word "alcohol," but no results appeared. After failing the task, the participant expressed issues with the content of the section and said, "All of this is just prevention. There's not a lot about getting *me* help. This isn't very helpful to people who have a problem."

Recommendations

After collecting our data and reviewing our results, we suggest three main recommendations for the existing version of the Student Rights and Responsibilities web page. Our recommendations can all be defined within the common theme of clarity and are listed as follows:

- Include the usage of more bullet points and visuals throughout the content and use the white space to the Office of Student Rights and Responsibilities' advantage
- Integrate common keywords into the content of the web page to make the website more user and search friendly
- Restructure the wording of the headings and navigational tabs to ensure strong navigability

Our recommendations are based on the results of our usability tests, our participants' feedback, and the implementation of these recommendations on a peer institution's student policy web page. Although these recommendations may need more research and take some time to implement, we believe that the inclusion of one, or more, of the suggestions above will significantly improve the way viewers perceive the information on the Student Rights and Responsibilities web page.

Including Visual Elements

Throughout our five individual usability tests, our participants commonly expressed that the information presented on the Student Rights and Responsibilities web page was too long and/or difficult to read. In turn, the lengthy text made participants more likely to skim and quickly give up on the web page after a short period of searching. Therefore, we recommend the inclusion of more visual elements (bullet points, infographics, photographs, etc.) be implemented on the Student Rights and Responsibilities web page to increase the overall clarity, readability, and organization of the website's content.

Susquehanna University, a peer institution to Elizabethtown College, currently has a Code of Student Conduct web page that uses white space to its advantage. In the figure listed below, Susquehanna University's Code of Student Conduct web page combines smaller amounts of text with visually appealing text boxes and links to reorganize their required information in an appealing format. See Figure 3.
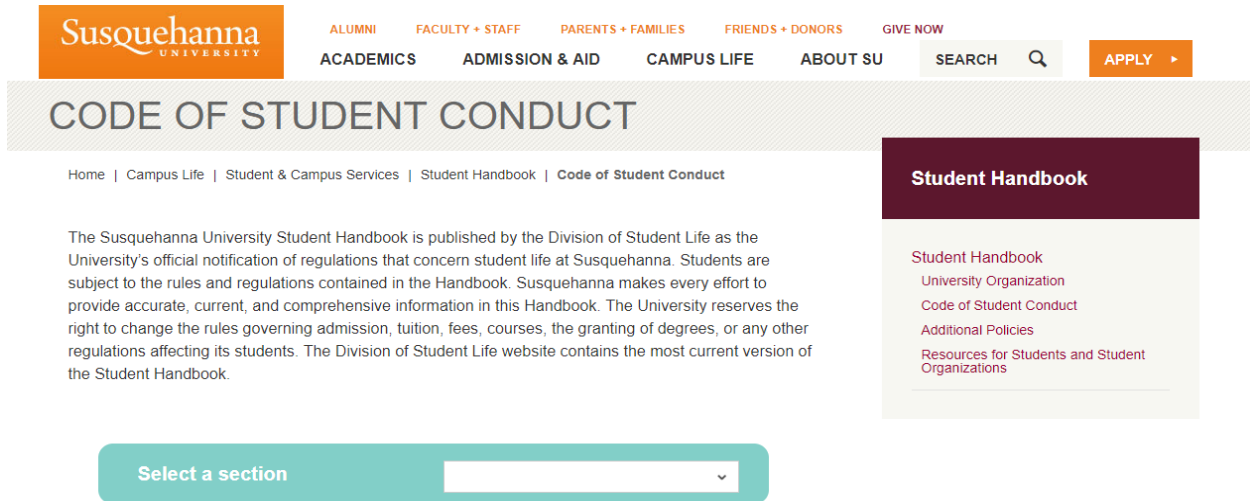
Figure 3

With Susquehanna University's Code of Student Conduct web page in mind, we think a similar layout and design, with highlighted text boxes and shorter text, would be an efficient way to increase the readability and clarity of Elizabethtown College's Student Rights and Responsibilities web page.

Integrating Common Keywords and Phrases

Additionally, our participants noted that they could not find information right away when using a "Ctrl+F" search or a keyword search query. When completing the task related to the Student Handbook, the participants used the provided catalog search to quickly find information. However, the results provided by the catalog were often faulty or not informative, leading the students to click on the wrong pages. Therefore, we recommend the integration of common keywords into the content of the website to present the site in a more user and search friendly fashion.

Throughout our usability testing, some of our participants tried to rely on keyword searching to quickly find answers, as they are accustomed to doing on other websites. The figure below lists the most commonly used keywords throughout our usability study, sized and weighted in a word cloud by the number of times students tried searching for them. See Figure 4.

Alcohol
Violation
Counseling
Student

Figure 4

With this word cloud of keywords in mind, we believe that the inclusion and the further analysis into the most commonly used keywords would be extremely beneficial to improving the clarity, readability, and navigability of the website. As we found, users would much rather quickly search and use keywords to find information rather than read the entirety of the content. Therefore, our group believes that updating the Student Rights and Responsibilities website to reflect current users' search patterns would be an effective and meaningful way to significantly improve the performance of the current web page.

Ensuring Navigability

In addition to the observations noted above, participants became easily lost in the titles and phrases of certain navigational tabs. Our participants expressed logical thought processes for finding the required information, but then became confused when the information was not under the tab they thought it should be, but rather hidden under other tabs without any identification.

Our participants also pointed out that some of the headings or navigational labels were either too wordy or too vague to decipher what information could be found within the page. Therefore, our group recommends restructuring the current headings and navigational tabs included throughout the Student Rights and Responsibilities web page to ensure the clarity and navigability of what information lies where.

Throughout our usability testing, it quickly became apparent that many of our participants were suspicious and unsure of exactly where they were navigating to during a portion of the scenario-based tasks. They were hesitant to click on tabs and links that were not clearly labeled, and they

became even more confused when information appeared under tabs that were completely unrelated to the content.

Therefore, our group believes that relabeling the headers, navigational tabs, and links in a more clear and concise way can significantly improve the clarity, readability, and navigability of the Student Rights and Responsibilities web page. With clear navigational labels and headings in place, users of the website will be able to clearly identify and indicate the sections of the web page that they truly need to visit, versus the sections they do not.

Appendix A

Team Meeting Minutes [removed in ABC upload]

Appendix B

Participant Profiles

Participant 1: Participant 1 is a female senior Elizabethtown College student. She is currently majoring in Japanese language.

Participant 2: Participant 2 is a female senior Elizabethtown College student. She is currently majoring in Engineering, with a concentration in environmental engineering.

Participant 3: Participant 3 is a male senior Elizabethtown College student. He is currently majoring in Communications with a concentration in mass media.

Participant 4: Participant 4 is a female senior Elizabethtown College student. She is currently majoring in History and minoring in Japanese.

Participant 5: Participant 5 is a female senior Elizabethtown College student. She is currently majoring in English with a concentration in Literature.

Appendix C
Usability Test Plan

Informed Consent- Participant's Consent Form

Title of Research: Usability of the Student Rights and Responsibilities Web Page

Principal Investigator(s): [students' names removed]

Purpose of Research
The purpose of the research is to obtain a consensus of usability for the "Student Rights and Responsibilities" web page.

Procedure
I will be asked to complete a pre-test evaluation in addition to a collection of scenario-based questions pertaining to the content of the Student Rights and Responsibilities web page. I will then be asked to complete a post-test about my experience with the web page.

Risks and Discomforts
I understand that no risks or discomforts are anticipated from my participation in this study.

Benefits
No benefits to subjects.

Compensation
I understand that I will not receive any compensation for participating in this study.

Confidentiality
The information gathered during this study will remain confidential with all records to be viewed only by the Principal Investigators listed above and Dr. Moore, the Faculty Advisor. The results of the research will be presented to the Technical Writing class and client, Dr. X. The presenters will not provide any information that will make it possible to identify me.

Withdrawal without Prejudice
My participation in this study is strictly voluntary. Refusal to participate will involve no penalty. If I decide to participate, I am free to withdraw at any time.

Contacts and questions
I understand that if I have any questions concerning the research project, I can contact [students' names removed].

Statement of Consent:

I am 18 years of age or older.

I have read the above information. I have asked questions and received answers. I am willing to participate in this study.

A copy of this consent form has been provided to me.

Participant Signature _____ Date _____

Investigator Signature _____ Date _____

Moderator Script:

Moderator: "Thank you for agreeing to participate in this voluntary usability study of a web page linked to the College's website. Please remember this study is a test of the usability of the web page and not of your skills. If you feel uncomfortable throughout the duration of the study, you are not required to continue. This usability test is on a voluntary basis, and I thank you for your time and support of this project.

"While you are participating in our test of this website, I'll need you to do some thinking aloud. That means you'll say the thought you are having while you use the website. I'll model this now with an app.

[Model think aloud]

"If there are no further questions, I will begin the study by asking you a series of pre-test questions."

Pre-Test Questions:

1. What is your participant number, age, gender and major?

2. What Elizabethtown College web pages do you visit the most?

3. What specific information would you expect to find on a 'Student Rights and Responsibilities' website?

4. Have you visited the 'Student Rights and Responsibilities' website before? If yes, were you easily able to find the information you were looking for?

5. When looking up information on the Internet, will you persistently view a web page for information until it is found or quickly look at other websites for your information?

Evaluated Tasks:

Task 1: Student Handbook

"Please locate the Student Handbook from the 'Student Rights and Responsibilities' landing page. Once located, identify the minimum number of Health and Safety Inspections Residence Life can conduct each semester."

[We'll record think aloud comments during this portion of the study]

Task 2: Student Code of Conduct Violation

"You have violated the Student Code of Conduct. You now have a Formal Resolution meeting to attend in response to your violation. Who conducts a Formal Resolution meeting?"

[We'll record think aloud comments during this portion of the study]

Task 3: Counseling Services

"Your friend is struggling with substance abuse and you need to make a referral to Counseling Services. Where can you locate more specific information to make a referral?"

[We'll record think aloud comments during this portion of the study]

Task 4: Student Resources

"You are struggling with alcohol and substance abuse. Locate two services available on the website to assist in finding help."

[We'll record think aloud comments during this portion of the study]

Post-Test Questions:

1. How would you rate your level of difficulty using the Student Rights and Responsibilities web page?

2. Would you recommend the Student Rights and Responsibilities web page to someone who had a problem?

3. Were there any tasks you found harder to complete than the others? Why do you think that is?

4. If you happened to find yourself in any of these fictitious situations, would you turn to the Student Rights and Responsibilities as a resource?

5. Do you have any additional comments regarding the Student Rights and Responsibilities web page?

Data Collection Worksheet:

Participant Number	
Age	
Gender	
Major	

Task 1	
Time to Complete Task 1	
Observations/ Comments	

Task 2	
Time to Complete Task 2	
Observations/ Comments	

Task 3	
Time to Complete Task 3	
Observations/ Comments	

Task 4	
Time to Complete Task 4	
Observations/ Comments	

Appendix D

IRB Approval Documentation [removed in ABC upload]

Appendix E

References

"Code of Student Conduct." *Susquehanna University*, www.susqu.edu/campus-life/student-and-

    campus-services/student-handbook/code-of-student-conduct.

"Student Rights and Responsibilities." *Elizabethtown College*, www.etown.edu/offices/student-

    rights/index.aspx.