Usability Report

UCI Disability Services Website

Group 4

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Introduction to Project

Problem Statement

The goal of this project is to evaluate the navigation and accessibility to critical information, and to test how users with specific disabilities interact with the current website.

Description of Project

The UCI Disability Service Center (DSC) is a center that aims to provide students with disabilities all the resources they need to succeed on campus. The DSC provides services such as notes, rides around campus, and making sure that the student has the appropriate accommodations in each of their classes. The DSC website is the subject of this project. One purpose of this project is to evaluate how easy it is for a user to navigate or access critical information. We want to see if the site is usable for users without disabilities or if the site meets accepted accessibility requirements (ex. POUR). The other purpose is to test the current site against users with specific disabilities: to see if the users with disabilities can access information easily, if there is missing information that is relevant to the users, or if there are adjustments that could be made to make the site more accessible.

Steps of Study

Initial Analysis

When we first looked at the website as a group, we noticed that there was a large amount of information and various ways to access certain points on the site that may cause the navigation of the site to be confusing and less effective. For example, some links that were available on the side of the homepage, were also available on drop down menus. In order to determine if our initial analysis was correct we decided on using various methods including an Accessibility Analysis, Surveys, User Test, and Interviews. We chose to perform a user test so that we could observe real users of the system performing tasks that were critical to the system's purpose. We chose these tasks together with the customer, and decided on a list that covered all critical functionality of the website. In order to prepare and further familiarize ourselves with the users, we distributed surveys in which we asked questions such as what devices they use to access the internet, and what assistive software do they utilize. Lastly, after each user test, we performed a semi-structured interview in order to get feedback on the user's experience with performing the tasks, and to ask if they had any recommendations that would increase the overall accessibility of the website.

Methods

1. Accessibility Analysis

The first step we took was to perform an initial analysis of the website. We broke up the website amongst the group and analyzed if for usability errors. The site was broken up by:

- Home
- Services and Accommodations
- Forms and Publications
- Student and Parent Resources
- Instructor Resources
- Contact US

We each took a section and attempted to navigate through it and took note of potential usability problems and consistency issues in order to get an initial idea of the website. Throughout each section we found inconsistencies that included buttons and menus opening new tabs while others navigated to the link or menu on the same tab. In addition, we found that if a user were to use the tab button to navigate through menus, they would be able to navigate through the different tabs of the menu (i.e. myDSC, Forms and Publications) but if the tab consisted of a drop down menu, they were not able to access the menu.

Our results are available in Appendix A1

2. Surveys

We chose to distribute surveys using Google Forms to all of our participants before we met them for user testing. This survey consisted of two sections. Section one was to be answered by all participants. Section two was to be answered only by participants who had experience using the Disability Services Center (DSC) website before.

Section one consisted of the following questions:

- Which physical devices do you use to access the Internet (Ex: phone, laptop, tablet, etc)?
- What is your preferred web browser? (Ex: Chrome, Firefox, Safari, etc.)
- Do you use assistive software? If so, which one(s)?
- What kind of assistive technologies do you commonly use on websites?
- Are there any accommodations on other websites that you have found extremely helpful?
- Have you had experiences where websites are hard to use?

Section two consisted of the following questions:

- What DSC services do you typically try to access?

- If applicable, please list the specific assistive technologies you've used to access the site.

The first section of the survey was to familiarize ourselves with the user's preferences of web browsers, and use of assistive software, as well as technologies that they had come across on other websites. We aimed to familiarize ourselves with the user's preferences before the formal usability testing began so that if we needed to perform further research to better understand the software and technologies that the user's utilized, we could do so.

The second section of the survey was to help us in deciding which tasks were the most critical to include in our user tests.

Each user's individual results are available in Appendix A2

3. User Test

Following the distribution of surveys, the next phase of our research (3rd phase) consisted of user testing. This phase involved creating specific tasks for user testing and creating scenarios and use cases of the tasks. Using our group's accessibility analysis of the DSC website and consultation with our client, Somphone, we decided on a total of 6 tasks that could be assigned and completed by our potential user testers. The user testing spanned over roughly an hours' time, including the interview which will be further discussed in the next section.

We concluded that the best method to not overwhelm our testers, but still complete what we needed, was to divide our team into groups of 3 people per user test session. During each session we had 1 person as the role of the greeter/briefer/test giver, 1 person as the videographer, and another person as the note taker. For every session, we recorded the participant's screen via smartphones, or laptops, and documented all notes via Google Docs.

For each user test we followed a similar structure where we first introduced our team members that were present, gave a brief explanation of what our project was and why we were conducting user testing, and explained that we would give them certain tasks to complete. We informed them that they were allowed to ask us questions whenever they were unclear with the task directions or anything on the DSC website, and asked them to "think aloud" by offering any comments and feedback while they went through and completed each task.

a. Scenarios & Use Cases

Before we conducted our user tests, we first created scenarios and use cases to represent the potential steps leading to the completion of each of the tasks. Each scenario included a mock persona who was trying to access a service from the DSC website. For each scenario, we created a use case about how the process would take place from the beginning to the completion of the task. For certain tasks, we also addressed how specific scenarios may differ if there were more than one way of completing a task or how a user

may see a different output of options or messages depending on the circumstances of trying to complete the task (e.g. being logged in vs. not logged in, being authorized vs. not authorized). However, for each alternative case within the use cases, each circumstance would still have the same end result of completing the task.

The process we took to draft the scenarios and use cases was by having our group members personally try to complete the tasks as if they were the persona we created for the scenario. To create the most accurate use cases as possible, our group went onto the DSC website with our test accounts, created thanks to Somphone's help, and completed the tasks, while documenting each step. This prepared us for our actual user tests as we had a general idea of what to expect when completing the tasks.

The following are the scenarios that we created:

1a: *Registering for DSC Services Through "Apply for Services" Button on the Homepage.*
>   **Scenario:** Bob is a new UCI student with a learning disability and is trying to register for services on the DSC website.

1b: *Registering for DSC Services Using the 'Registering for Services' Tab*
>   **Scenario:** Harrison, a basketball player on UCI Men's basketball team, has recently suffered a broken wrist on his right hand and is now currently unable to take notes in class. He decides to use UCI's DSC services to register for a DSC account in order to get a notetaker for lecture.

2a: *Signing up for Notetaking*
>   **Scenario:** Shirelle wants to sign up for notetaking for her class this quarter.

2b: *Checking the Testing Accommodations*
>   **Scenario:** Now that Shirelle's signed up for note taking and testing services through the Faculty Notification Letter, she wants to make sure that she remembers when all of her tests are.

3: *Ordering Ring Road Rides*
>   **Scenario:** Fall quarter is just about to start and Johnny wants to make sure he has a ride to all of his classes for the quarter.

4: *Site Navigation*
>   **Scenario:** Joe is a very studious student that takes very neat notes. He also likes helping others, so when he heard about the opportunity to take notes for DSC he wanted to apply to be a DSC Note Taker.

See Appendix section A3 "Scenarios and Use Cases" for the full use cases written for each scenario.

b. Tasks

The user testing consisted of the following 6 tasks:
1. Complete the online registration form
2. Sign up for the Faculty Notification Letter
3. Sign up for Ring Road Rides
4. Find the Orientation Video
5. Navigate to and open the Verification of Impairment Form (PDF)
6. Find the "Eligibility of Services" section

3 tasks focused on services related to the MyDSC account and the other 3 tasks focused on testing the general navigation of various aspects that could potentially bring up an issue for users with disabilities. The first 3 tasks that related to a MyDSC account were chosen because our client informed us that they were the most commonly used and accessed services on the DSC website. The online registration form is a requirement that must be completed by every new user before they can access any of the DSC services. The faculty notification letter is how users are able to sign up to for testing accommodations with their instructors. The Ring Road rides are for users to schedule when they need to get picked up or dropped off around campus.

The last 3 tasks were picked as tasks for the user tests because they are general areas of the website that we analyzed and discussed with our client that could potentially cause issues, confuse, or unnecessarily slow down users with disability looking for specific information. For instance, the orientation video has 2 ways that it can be opened, but both routes require clicking through more than one link. Opening the Verification of Impairment Form leads the user to a PDF file that is no longer part of the DSC website, leading us to question whether or not it would affect the user's usability. Similarity, the "Eligibility of Services" sections has a couple links that automatically scrolls the user down to another section on the same page, and wanted to know how users with disabilities might deal with this as opposed to being redirected to a new page.

For these reason and given our time constraints both to conduct user tests and to complete this project, we concluded that it would be most beneficial to test the main services offered on the DSC website and the general inconsistencies that occurred when navigating.

4. Interviews

Another method we utilized in our research was interviews. Based off the group's evaluation of the website and the tasks we chose, we created questions that were presented to the users as an exit interview following the completion of their assigned tasks. These interviews were semi-structured, where there were a few main questions that we asked every user tester, but depending on the user and their experience with completing the tasks on the MyDSC website, more or less questions were asked. In other words, to avoid repetition from asking users questions they may have already answered

while completing the tasks, some questions were not asked in some sessions because some users were more detailed in voicing their experience and feedback while completing certain tasks.

The exit interviews focused on the user tester's experience with the DSC website and any suggestions or comments they had about how the DSC website could improve. Questions were divided into 4 sections: account registration, faculty notification letter, MyDSC rides, and MyDSC in general. Most of the questions focused on how the user rated their experience with certain aspects of completing the task or navigating through the DSC website and open-ended questions on if there were any notable difficulties they encountered. The interviews were conducted for re-evaluation purposes only.

The main interview questions we asked during each user testing were as follows:

1. Were there any specific difficulties or problems that you have encountered when using the website?
2. What aspects of the website were easy to navigate?
3. How do other sites accommodate you? Or what do other sites do to make them easier to use?
4. On a scale of 1-5 (1 being very comfortable, 5 being pretty uncomfortable), how comfortable do you feel in your abilities to navigate the website? Why?

For the full list of interview questions, please refer to Appendix section A5 "Interview Protocol".

Timeline

The following are the main steps we took to complete this project:

1. Met with customers, proposed a weekly meeting time, clarified problem, and discussed plans
2. Evaluated each section of DSC website
    a. Take notes on section
    b. Create interview questions based off of notes
3. Created and distributed surveys
4. Reviewed survey responses
5. Created user testing tasks and interview questions
6. Created Scenarios for user testing based off tasks
7. Scheduled user testing with user testers
8. Conducted user tests
    a. Conducted interviews after each session
9. Reviewed and analyzed user test results and feedback
10. Wrote up final report with conclusions and recommendations for improvement
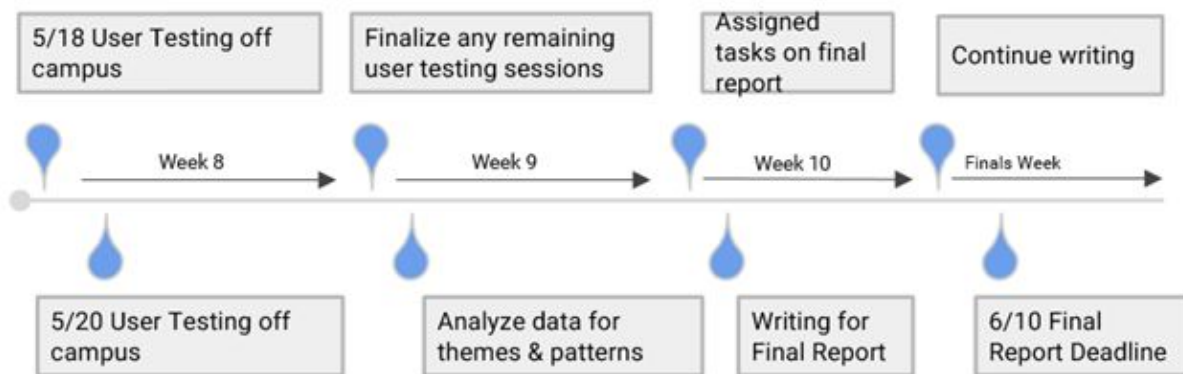   a. Assessments
    b. Recommendations

Below is a general timeline of our progress throughout the weeks.

Week 3-Week 7:

Week 8- Finals Week:

Types of Users
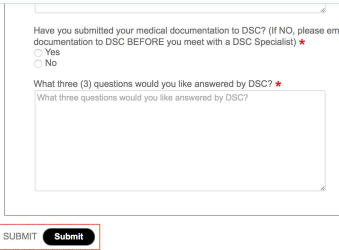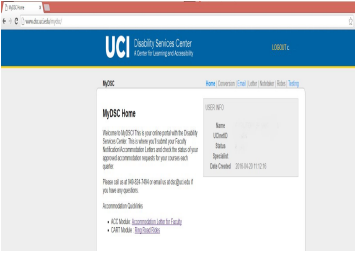
For this project we conducted tests with 5 different users. These users were introduced to us through our contact at the DSC. Three of these users were completely blind, one had partial vision, and one had cerebral palsy. Three of the users were students at UCI, while the other two were community members. This is relevant because three had prior experience using the DSC website while the community members had never used the DSC website prior to the user tests. The three blind users used screen readers while the other two users did not use any assistive software.
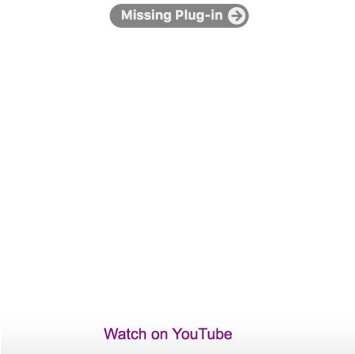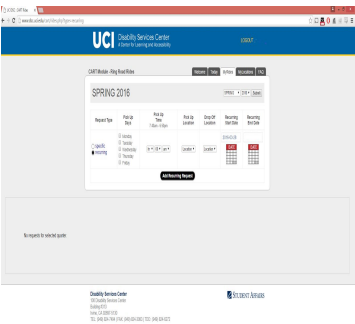
Insights and Results

Participants of the usability testing often ran into similar issues. Using the interview analysis sheet in the appendix, we have grouped the most relevant issues and feature

requests. Issues and requests pertaining to variables outside of the website's scope, such as browser or software problems, were disregarded for this table. The severities are ranked from low to high and are not entirely based on the number of affected users, but of the criticality of the issue.

Usability problem	Number affected	Severity
Screen reader and web page discrepancy in an email field of DSC's application for services	3/5	Medium
Difficult navigating back to homepage of DSC and homepage of myDSC	3/5	Medium
Multiple submit texts are confusing for screen readers	2/5	Medium
The links at the top of My DSC are hard to navigate	3/5	Medium
General lack of contrast in MyDSC for things like Ring Road Rides, couldn't see "highlighted" ones user selected for location in Rides and was unclear if had selected anything (no	1/5	Low

contrast)		
Shortcut key for screen reader is supposed to identify buttons on the website but doesn't identify online registration form's "register" as a button, rather a link	1/5	Low
Orientation video says "Missing plug-in" although works if "Watch on YouTube" is clicked 	2/5	Low
MyDSC's testing dates table format is confusing for screen reader because it reads down each column	1/5	Low
Feature request: Specify desired format for date input in myDSC rides 	4/5	Very High

Feature request: "login" should be a different color because the button lacks contrast on the white background **LOGIN** Please log in with your UCInetID	1/5	Low
Feature request: Due to lack of contrast, text fields should have some background to know where to fill. Address * City * State *	1/5	Low
Feature request: when a field is missing, it should be highlighted so it's easier to tell which field is missing, instead of opening a new page **Missing or Invalid Fields** Form could not be processed for the following reasons: * 'Non-UCI Email Address' must be a valid e-mail address * 'Cell/Contact Phone' is required * 'Permanent Address' is required * 'Permanent City' is required * 'Permanent State' is required * 'Permanent Zip' is required * 'How did you hear about DSC' is required * 'Identify disability' is required * 'Describe disability' is required * 'Describe difficulties' is required * 'Submitted Medical Documentation' is required Go Back	2/5	Medium
Feature request: Implement more consistent HTML tags so screen reader reads more smoothly instead of inadvertently reading one tag as two	1/5	Medium
Feature request: Implement more combo boxes	2/5	Low
Feature request: more	1/5	Medium

headings because headings are easy to navigate for the blind, can just press "h"		
Feature request: Opening new tabs and windows should be avoided unless completely necessary	1/5	Low
Feature request: For ring road rides, the building names should be fully stated instead of just their acronyms for the benefit of screen readers	1/5	Low

Analysis of Insights and Results

Very High Severity: One singular problem rated with "Very High" severity:

- "Feature request: Specify desired format for date input in myDSC rides."

This problem is essential to the usability of the DSC website. Based on the high number of users affected, it should be highly prioritized as it is a core functionality in registering for campus rides. Currently, there is a learning curve in realizing the current date format, which is especially problematic for blind-vision users, as it requires repetitive use of the screen reader to process the current format. Without addressing the problem, users will still have to spend some time learning the proper format for entering a date.

Medium Severity: The problems rated with "Medium" severity:

- "Screen reader and web page discrepancy in an email field of DSC's application for services"
- "Difficult navigating back to homepage of DSC and homepage of myDSC"
- "Multiple submit texts are confusing for screen readers"
- "*Feature request:* Due to lack of contrast, text fields should have some background to know where to fill"
- The links at the top of My DSC are hard to navigate
- "*Feature request:* when a field is missing, it should be highlighted so it's easier to tell which field is missing, instead of opening a new page"

- *Feature request:* when a field is missing, it should be highlighted so it's easier to tell which field is
- *Feature request:* Implement more consistent HTML tags so screen reader reads more smoothly instead of inadvertently reading one tag as two
- *Feature request:* more headings because headings are easy to navigate for the blind, can just press "H"

These problems are effectively treated as target goals that should also be prioritized to improve the usability of the site. Addressing these problems would improve the purpose and functionality of these features, and would improve the transition time between each action on each page. For example, implementing more consistent HTML tags would avoid confusion amongst users on what they are reading on the screen, and therefore they would spend less time on the problem and reach their target goal more efficiently.

Low Severity: The problems rated with "Low" severity:
- General lack of contrast in MyDSC for things like Ring Road Rides, couldn't see "highlighted" ones user selected for location in Rides and was unclear if had selected anything (no contrast)
- Shortcut key for screen reader is supposed to identify buttons on the website but doesn't identify online registration form's "register" as a button, rather a link
- Orientation video says "Missing plug-in" although works if "Watch on YouTube" is clicked
- MyDSC's testing dates table format is confusing for screen reader because it reads down each column
- *Feature request:* "login" should be a different color because the button lacks contrast on the white background
- *Feature request:* Due to lack of contrast, text fields should have some background to know where to fill.
- *Feature request:* Implement more combo boxes
- *Feature request:* Opening new tabs and windows should be avoided unless completely necessary
- *Feature request:* For ring road rides, the building names should be fully stated instead of just their acronyms for the benefit of screen readers

These problems are lowly prioritized due to the nature of their functionality within the site, meaning that its current standing would not drastically affect the DSC website's usability and navigability. Addressing these minor features, however, would add that extra layer of depth to the website that would provide a more user-friendly experience in terms of efficiency, convenience, and reducing confusion. For example, addressing the problem of new tabs opening up as a result of clicking a link would avoid possible confusion of what page they are viewing.

Final Recommendations

Disclaimer: All references to user tests in this section are referencing the user tests in the Interview Analysis table (Appendix A.6).

Overall, our final recommendations could be summarized into three main themes of how the site should be redesigned: 1) purposefulness, 2) consistency, and 3) ease of use with disability aids.

Purposefulness

This theme is pretty much summarized by the phrase, "everything presented must have a purpose."

Unnecessary features

In both our accessibility and user test analysis, our group found that there were a lot of excessive or unnecessary features on the site that simply distracted the user from completing tasks in a quick and easy way. For example, in one of the user sessions (see user entry 5/9), the user was delayed from completing the task due to numerous blank entries in a dropdown menu that was part of the registration form. Those blank entries held no purpose and it is unnecessary features like these that should be removed from the site in order to make it more usable.

Clarity of purpose

Our user tests showed that a lot of the user base were having issues identifying text boxes, buttons, and other interactive portions of the site. These issues are caused by the fact that objects on the screen do not have distinctive features; meaning, it's hard for users to be able to tell what they're clicking on (ex: textboxes are too small, fonts are too small, there isn't enough contrast on the site page). In addition, items that require user input do not explicitly state required formats or easily identify areas of error to the user. All of these issues show that the site needs to make functionality more intuitive to the user through the creation of clearer icons, clearer instructions, and clearer error prevention methods.

Consistency

When analyzing the site both individually and through our feedback from the user tests, our team found that the site faces a general lack of consistency. This lack of consistency can be summarized into one main recommendation: the site must have better uniformity. This uniformity can be cut down into two main categories: appearance and functionality.

Appearance

Currently, all DSC related sites each have a different look and feel. For example, if one were to compare the general DSC site with the Ring Road Rides site or the myDSC site, he or she will find that the sites do not look related at all; the template used to design the

Ring Road Rides or the myDSC sites look more updated and better match the general UCI template. In addition, due to the separate templates on each site, users have to relearn the informational structure every time they try to complete a different task. This lack of consistency in both the general template and the distribution of information on each of these sites makes the user's experience more difficult. Therefore, there should be a general template for all related DSC sites so that the user can easily navigate to and through different types of tasks.

Functionality

Currently, all DSC related sites also have different functionalities when a user clicks on links, buttons, etc. This finding came up both during the team's accessibility analysis and during user sessions (see user 5/10) when users found that clicking links would either create a new browser tab, browser window, or just simply load onto the existing page. These reactions to the simple mouseclick are random and so the user simply doesn't know what to expect, making the navigation of the site a lot more tedious than it needs to be. Therefore, if all links were to have the same default behavior, then the user would be able to navigate the site at a much faster rate.

Additionally, the site currently does not support backwards navigation from DSC related sites to the general DSC website. This lack of support for backwards navigation makes it harder for users to navigate back to completing other tasks on the site. Therefore, the site must have a link that allows the user to navigate back either to their previous tasks (such as through enabling the back arrow button on the user's web browser) or provide a link to the general DSC website on all related sites.

Ease of use with disability aids

Our user tests showed that there were several accessibility issues with the DSC sites, especially with existing disability software and equipment. For example, the site does not contain a consistent format for HTML tags, which can make it hard for screen readers to differentiate between tags. In addition, the site can offer more features or alternatives that can work better with screen readers or other disability software, such as by providing a magnification feature to the site so that users can magnify the text or icons on the page, or by providing combination boxes for the date aspect of Ring Road Rides. Finally, the DSC staff should verify that the site works well with all screen readers and equipments so that users can gain access to all different types of information, such as text, links, and any form of media seeing as in one of our user tests (see user entry 5/10), the user was unable to access certain content on the site because he didn't have the correct plugin installed. Users should not be prevented from accessing information due to a lack of plugins and so our team suggests that information should be accessible in multiple ways.

Personal Insights

Shirelle's Insights:

Overall, I'm very appreciative of this experience. I found that testing was a lot harder than I had imagined (it was definitely more nuanced than I ever thought it would be). In addition, I really enjoyed the fact that I got to observe students with disabilities- I found it really fascinating as I didn't realize how difficult it could be to navigate even a seemingly "simple" website. And finally, I'm very grateful for the opportunity to help students with disabilities in this indirect way. I know that all of this was done for a course, but knowing that I helped make these students' lives easier is really fulfilling.

Vincent's Insights:

Being a part of this project has taught me a lot, both professionally as a student and personally. This was the first project that allowed my group and I to design our own study, for example controlling what we wanted to test and what kind of questions we wanted to ask. I also put a lot of things I learned from Informatics 131 and other Informatics classes into practice, and I thought it was really cool because it came to life in an actual study. Being an interviewer during user testing was also a unique experience, since I'm usually on the user-side testing things out for others. I learned how to be a better interviewer, whether it was easing the tester into the session, or being objective and unbiased in how the session was playing out. On a more personal basis, interacting with the testers really taught me that you should never assume the capabilities of your user. The testers were just so familiar with the website - they knew the ins and outs and how to reach a specific page; knew things like the intricacies of the HTML tags. As we learned in a few Informatics classes, don't underestimate the user, and so we should always envision to be in their shoes rather than substitute them for our own.

Jeffrey's Insights:

This project was a great experience for me. It made me realize how small aspects of a website can greatly affect its usability for different people. After this project I had gained a better grasp of Human Computer Interaction and more insight on ways to make websites more accessible for all people. I understand that there will never be a perfect website that is able to be easily used by everyone, but even the smallest changes can greatly affect how one uses the website. My favorite part about this project was definitely interactive with the users and learning more about website accessibility from how they were going through the tasks. The users who were UCI students were very eager to help because they were excited that they were taking part of something that will not only help them, but help make the DSC website more usable for everyone that uses it as well. Knowing that the future iteration of the website will take our recommendations into consideration and how it will help the students who use the website makes me glad that I chose this project.

Kathy's Insights:

This project turned out to be both a positive experience and a pleasant surprise. I learned a lot about working with users with disabilities and how it's important for the usability of websites to be accessible and user friendly to all user types; and to do so, there are many considerations that must be thought of when making a website. What I had thought to be quite straightforward for a website, can in fact turn out to bring up more issues than I realized for certain users. I was also surprised to see that users with disabilities, such as blindness, can navigate impressively, efficiently and quickly through a website using a screen reader, which to me read off the text so quickly I could not process it in time. I also didn't expect that we would receive so many suggestions and helpful feedback on how to improve the DSC website or that the user testers would all seem happy to take time out of their day to help us with our user testing. Overall, completing this project exposed me to a lot of valuable experience in the field of HCI and allowed me to apply the techniques I learned in class to a real project that would benefit users with disabilities.

Christopher's Insights:

I really enjoyed this experience overall. This was the first time I worked with people with disabilities, and the accessibility of a website with a real customer and I didn't really know what to expect. I really learned lot throughout the process. Because this was the first time I helped plan and conduct a user test, I was pretty nervous and excited to see how it would turn out. It was rewarding to observe real users of the website perform the tasks we gave them, and I really enjoyed all of their great feedback. The amount of feedback that we received from users throughout testing was awesome, and I honestly didn't expect there to be that much feedback. I also enjoyed learning about assistive technology such as JAWS, and seeing how users utilized such technology. I would definitely be interested in doing another similar project.

Daniel's Insights:

This project was very interesting and provided valuable experience. I have never worked with blind people or those with cerebral palsy so I was able to learn how these people use the internet and how they complete other tasks on their computers with various assistive technologies. Also, our team's freedom was a welcome change because usually in classes we are tasked with strict due dates and precise guidelines. This meant we had to do substantial planning and meet in-person at least once a week as a team. Additionally, due to the project's scale the interdependence between members on our team was very high. Certain analyses conducted by one member was often used by another member in another context, so we had to rely on each other for providing clear documentation.

Appendix

A1. Accessibility Analysis
Home - Daniel
My DSC - dont have access
Services and Accommodations - Jeffrey
Forms and Publications - Vincent
Student and Parent Resources - Shirelle
Instructor Resources - Chris
Contact Us - Kathy

Forms and Publications Evaluation

Forms and Publications: Same Tab

    A. Forms
        Verification of Impairment (PDF): Same Tab
        Verification of Mental Health Evaluation (PDF): Different Tab
        Verification of AD/HD (PDF): Same Tab

    B. UC Guidelines
        Psychological Guidelines (PDF): Same Tab
        LD Guidelines (PDF): Same Tab
        AD/HD Guidelines (PDF): Same Tab

Referral Information for Assessments Same Tab

    A. Learning Disability Assessment
        www.neuropsychologyservices.com: Same Tab
        www.newportassessment.com: Different Tab

    B. Supervised Non-License Evaluators
        mhume@argosys.edu - Email Address: Asks for options on which tool to use (e.g. Google Chrome, Outlook, Gmail…)

    C. AD/HD Assessment and Treatment
        www.neuropsychologyservices.com: Same Tab
        www.newportassessment.com: Different Tab

Disability Document Forms (Same as Forms and Publications)

Services Animals at UCI: Different Tab

Annual Report: : Different Tab

Services and Accommodations
Requesting Services : Different Tab

Registering for Services: Different Tab

Eligibility for Services: Same Tab

List of Services and Accommodations: Same Tab

Large amount of links in requesting services and registering for services which open new tabs.

Student Resources
- Home Page- can be accessed through Tab and Enter, direct clicking, or hover
    - **When Accessed through Tab or direct clicking:**
        - **Opens new window** with Intake Forms: (all can be accessed through Tab- Enter)
            - Student Rights and Responsibilities (PDF)
                - Student Rights and Responsibilities PDF
                    - **Opens new tab** with PDF
                - Student Rights- can be accessed through Tab and Enter and through clicking
                    - **Opens new tab** with Header: Student Rights and Responsibilities
            - Developing Self-Advocacy Skills (PDF)
                - **Opens new tab**
            - Test Administration Procedures (PDF)
                - **Opens new tab**
        - ONCE CLICK ON AN INTAKE FORM, NO WAY TO NAVIGATE BACK TO THE ORIGINAL INTAKES FORM PAGE THROUGH BACK ARROW
    - **When Accessed through hovering, user is offered different dropdown menu (not available through tab-enter unless hover is already instantiated) :**
        - Accommodation Links
            - Opens in same window
            - Has some broken links
            - Live links can be accessed through tab-enter
                - All links open on same page except for CART database
            - Can go back to previous page through back arrow
        - Ring Road Rides

- **Opens new tab**
  - Everything on page can be accessed through tab-enter
  - Cannot go back to previous page through back arrow
- Adaptive Technology
  - Opens in same window
  - Links open on same page and Adaptive Technology home page is accessible through back arrow
    - Can also be accessed through tab-enter
  - Can go back to previous page through back arrow
- Conversion/Alternate Media Services
  - Opens in same window
  - Links are all working
  - Can go back to previous page through back arrow
- Online Conversion(SensusAccess)
  - Opens in same window
  - Can go back to previous page through back arrow
- DSC NOTES Providers
  - Opens in same window
  - Can go back to previous page through back arrow
- Opportunities for Students
  - Opens in same window
  - Can go back to previous page through back arrow
- **No way to access drop down menu if using keyboard shortcuts → major problem**

Parent Resources
- Home Page- can be accessed through Tab and Enter, direct clicking
  - **When Accessed through Tab or direct clicking:**
    - Opens in same window
    - Links are not broken
      - Some open on same page (PDF w/ hyperlink title) **but some open in a new tab (PDF w/o hyperlink title + Links under "Additional Resources")**

Contact Us Evaluations

Contact Us – Opens in New Tab, but everything else under the drop down opens in same tab

- Clicking interactive map -- opens in new tab

DSC Core Functions
- Informs that they can be contacted by phone, email, letter, or in person
  - Includes phone #s even though it's on the bottom of every page & Contact, BUT doesn't provide email or address to mail letters to directly on the page

- Inconsistent & inefficient?

Confidentiality
- Privacy & Student Records link opens in new tab
  (http://www.reg.uci.edu/privacy/)

DSC Staff
- 2 of the staff members for Business Services Office don't have an email link
- Some staff members have no picture

Student Staff
- Page has no info and only "Coming Soon…"
    - How long has it been Coming Soon?

Facebook
- Opens in new tab directly to DSC Fb page

Complaints & Grievances
- Phone numbers are not bolded or in any way distinguishable from the text which is in block paragraphs.
    - Perhaps it would be beneficial to separate it out?
- Mentions that students may request to receive any DSC policies & procedures, but is it possible to provide a link to these (if they are online)?
- Mentions students can contact the Ombudsman office, but could provide a link to their website in addition to the address and phone # for easier accessibility & more info. (http://ombuds.uci.edu/)
- Mentions the UCI OEOD where students with disabilities may file complaints, but could also provide a link in addition to address & phone #. (http://www.oeod.uci.edu/)

Home page

- Apply for services button's hover-text "registering with DSC" is slightly different than text on button
- Main image alt text "*hand on braille, access, hearing aid, this is what adhd feels like*" doesn't match the picture
- Underlined text in "Graduate" and "Undergraduate" could be confusing because "Underlines almost universally indicates linked text"
- Orientation video button extends longer than it physically shows
    - Videos are embedded YouTube videos, but why do they require flash plugin?
    - There is another link to orientation videos right under the big button
- Gray sidebar
    - For "Orientation and tutorial videos" in gray sidebar, Title attribute text is the same as text or alternative text.

- ○ "Service & Emotional Support Animals in Higher Education" creates new tab, only link in sidebar that does that isn't a PDF
    - ○ All bulleted lists are unordered
- ● "UCI Search" doesn't work for "UCI" or "People"

Instructor Resources

Drop Down Menu
- ● Submit Exam Information opens new tab
- ● Course Accessibility opens new tab
- ● Document Accessibility opens new tab
- ● DSC Faculty Handbook opens new tab

Testing Accommodations
- ● Instructor Testing Guide opens new tab with Instructor Testing Guide, Testing FAQs, Why Testing Accommodations?
- ● Testing FAQs opens new tab
- ● Why Testing Accommodations opens a new tab

Faculty Teaching Tips
- ● Each link on this page opens a new tab

Course Accessibility
- ● Ok

Web Accessibility
- ● Font sizes differ

Document Accessibility
- ● Ok

DSC Faculty Handbook
- ● Ok

Creating A List of Inconsistencies We Found Throughout Site (so we can structure more specific questions):

- Lack of consistency
    - Links or submenus do not create the same behavior
- Links/ phone numbers are not always identifiable

A2. Survey

DSC Evaluation Initial Survey

A brief survey to better understand how you use technology.

* Required

Which physical devices do you use to access the Internet (Ex: phone, laptop, tablet, etc.)? *

Your answer

What is your preferred web browser? (Ex: Chrome, Firefox, Safari, etc.) *

Your answer

Do you use assistive software? If so, which one(s)? *

Your answer

What kind of assistive technologies do you commonly use on websites? *

Your answer

Are there any accommodations on other websites that you have found extremely helpful?
If there are, please list at least one example.

Your answer

Have you had experiences where websites are hard to use?

Your answer

NEXT

Never submit passwords through Google Forms.

DSC Evaluation Initial Survey

If you have experience using the DSC website:

What DSC services do you typically try to access?

Your answer

If applicable, please list the specific assistive technologies you've used to access the site.

Your answer

BACK   SUBMIT

Never submit passwords through Google Forms.

A2.1 Survey Responses

Response 1

Which physical devices do you use to access the
Internet (Ex: phone, laptop, tablet, etc.)? *

phone, laptop, tablet.

What is your preferred web browser? (Ex: Chrome,
Firefox, Safari, etc.) *

Chrome and Safari.

Do you use assistive software? If so, which one(s)? *

co-writer 6 kurzweil 3000

What kind of assistive technologies do you commonly
use on websites? *

co-writer 6

Are there any accommodations on other websites that
you have found extremely helpful?
If there are, please list at least one example.

big text size

Have you had experiences where websites are hard to
use?

yes

If you have experience using the DSC website:

What DSC services do you typically try to access?

don't know

If applicable, please list the specific assistive
technologies you've used to access the site.

Response 2

Which physical devices do you use to access the
Internet (Ex: phone, laptop, tablet, etc.)? *

Laptop, Phone

What is your preferred web browser? (Ex: Chrome,
Firefox, Safari, etc.) *

Firefox

Do you use assistive software? If so, which one(s)? *

No

What kind of assistive technologies do you commonly
use on websites? *

Magnifiers

Are there any accommodations on other websites that
you have found extremely helpful?
If there are, please list at least one example.

Websites with good contrasting layout, large
highlighted buttons and textfields, tab navigation

Have you had experiences where websites are hard to
use?

Yes. Websites with poor contrast, small fonts, small
buttons and text boxes.

If you have experience using the DSC website:

What DSC services do you typically try to access?

Faculty Notification Letters

If applicable, please list the specific assistive
technologies you've used to access the site.

None

Response 3

Which physical devices do you use to access the
Internet (Ex: phone, laptop, tablet, etc.)? *

I use iPhone, Android iPad, iPod, Mac Book Air,
Windows Laptop, and desktop

What is your preferred web browser? (Ex: Chrome,
Firefox, Safari, etc.) *

Internet Explorer

Do you use assistive software? If so, which one(s)? *

Jaws, VoiceOver, Window-Eyes, NVDA, Talkback

What kind of assistive technologies do you commonly
use on websites? *

Jaws, VoiceOver on the iPhone, and Mac Book Air.

Are there any accommodations on other websites that
you have found extremely helpful?
If there are, please list at least one example.

Have you had experiences where websites are hard to
use?

Yes

If you have experience using the DSC website:

What DSC services do you typically try to access?

I don't have experience using the DSC services.

If applicable, please list the specific assistive
technologies you've used to access the site.

Response 4

Which physical devices do you use to access the
Internet (Ex: phone, laptop, tablet, etc.)? *

iOS on the iPhone, Windows laptops, and the
Humanware BrailleNote Apex device

What is your preferred web browser? (Ex: Chrome,
Firefox, Safari, etc.) *

FireFox

Do you use assistive software? If so, which one(s)? *

Job Access with Speech (JAWS), Voiceover

What kind of assistive technologies do you commonly
use on websites? *

Radio buttons, Checkboxes, Scripted/tagged links
and graphics, and any other function that may be
available via using arrow keys or screenreader
commands

Are there any accommodations on other websites that
you have found extremely helpful?
If there are, please list at least one example.

Google's home page has a function that recognizes
screenreaders on computers such that it prompts a
user with a link that reads: "Screenreaders, click here
to turn off Google instant". Alternative page layouts
that would make a site fully accessible are a big help
and often do not interfere with the sighted user's
experience on the site.

Have you had experiences where websites are hard to
use?

Yes. Popular sites like Youtube and Twitch are
constantly updating their flash players and other
settings. These are sites that often depend on flashy
designs that are not tagged properly for
accessibility.

If you have experience using the DSC website:

What DSC services do you typically try to access?

Accommodations notification letter function, Ring
Road Rides (both my rides and my locations
subsections on the site), and DSC Main Portal

If applicable, please list the specific assistive
technologies you've used to access the site.

Job Access with Speech (JAWS), Voiceover, and
Humanware's BrailleNote Apex device

Response 5

Which physical devices do you use to access the
Internet (Ex: phone, laptop, tablet, etc.)? *

PC Laptop, iPhone, and ipad

What is your preferred web browser? (Ex: Chrome,
Firefox, Safari, etc.) *

Depends on situation/site accessibility, I use Internet
Explorer most often but also use the other three.

Do you use assistive software? If so, which one(s)? *

JAWS, NVDA, and VoiceOver screenreaders, plus a
braille display

What kind of assistive technologies do you commonly
use on websites? *

See above response.

Are there any accommodations on other websites that
you have found extremely helpful?
If there are, please list at least one example.

Please visit the following link for accesibility tips for
screen-reader users.
http://webaim.org/techniques/screenreader/

Have you had experiences where websites are hard to
use?

Yes. One particular area that DSC's website can
improve is their proper use of spelling. As a screen-
reader and braille display user, I found several
spelling mistakes due to JAWS mispronouncing the
words. Other sites are also difficult to use depending
on if their pages rely on JAVA.

If you have experience using the DSC website:

What DSC services do you typically try to access?

Ring Road Rides and SensusAccess

If applicable, please list the specific assistive
technologies you've used to access the site.

JAWS screen-reader

Response 6

26

Which physical devices do you use to access the
Internet (Ex: phone, laptop, tablet, etc.)? *
computer

What is your preferred web browser? (Ex: Chrome,
Firefox, Safari, etc.) *
chrome

Do you use assistive software? If so, which one(s)? *
EZ Keys

What kind of assistive technologies do you commonly
use on websites? *
EZ Keys

Are there any accommodations on other websites that
you have found extremely helpful?
If there are, please list at least one example.
No

Have you had experiences where websites are hard to
use?
Yes

If you have experience using the DSC website:
What DSC services do you typically try to access?

If applicable, please list the specific assistive
technologies you've used to access the site.

A3. Scenarios and Use Cases
Scenario #1a: Registering for services through "Apply for Services" button on homepage.

Scenario: Bob is a new UCI student with a learning disability and is trying to register for services on the DSC website.

Bob is a new student who just transferred into UCI and has a learning disability. Bob opens his laptop and clicks on a web browser where he enters "disability.uci.edu" into his url bar. The DSC website loads out and Bob scrolls down to look for a place he can register for services. Upon scrolling down, he sees a blue button that says "APPLY FOR SERVICES" and clicks on it. Clicking on the button leads Bob to a page on the DSC website that details the steps to register with DSC. Bob reads through each of the headings "Registering for Services" and "How to Register with DSC". Under "How to Register with DSC", Bob reads the 3rd step and sees "Complete the Online Registration Form." Bob clicks on the hyperlink for "Online Registration From".

> **If Bob is already logged into UCInetID:** The DSC website leads him to a blank white page with a red box in the center that says "Please agree to Confidentiality statement. Go Back". Bob is unsure of how he missed the confidentiality statement page, and clicks the hyperlink to "Go Back" in the red box. DSC then loads up a new white page that states the confidentiality statement, that was previously unseen on the "How to Register" page.

If Bob is not logged in: The DSC website displays "Login Required" and prompts him to sign in with his UCInetID login. Bob clicks on the "LOGIN" hyperlink at the bottom and UCI's login asks him for his UCInetID and password. Bob enters his UCInetID and password and presses "Login". DSC now loads up a new white page that states the confidentiality statement.

Bob reads the confidentiality statement and scrolls down to the drop down menu bar that tells him to "Select 'I agree' and Submit to Sign Document". He clicks on it and selects "I Agree (Bob)" before clicking the "Submit" button on the right of the drop down. The DSC website then prompts him for his personal information with his full name and UCI Email address pre-filled. Bob notes that all the red stars indicate a required field and proceeds to enter his "Cell/Contact phone" and "Alternate Email Address". Bob scrolls down and sees questions regarding his status and disability. Bob does not select any of these questions to answer. Scrolling further down, Bob sees more address and contact information that are required fields. He enters the appropriate details. On the Questionnaire section, Bob notes that each of these fields are required. His answers are as follows "UCI Staff, Learning Disability, None, No, None". He then clicks the "Submit" button at the bottom of the page. The DSC website loads up a page with all the information Bob entered in the fields on the registration form and asks him to confirm the information by pressing "SUBMIT" at the bottom. Bob reads through each field and clicks "Submit". The DSC website thanks him for submitting the information. Having completed his registration to apply for DSC services, Bob exits out the website.

Side note: I entered all the required fields with "." for testing and was still able to successfully submit the document without the system registering anything wrong with that.

Scenario #1b: Registering for Services Using the 'Registering for Services' Tab

Goals:
- To locate the 'Registering for services' tab
- To complete the online registration form
- To successfully register for a DSC account

Harrison, a basketball player on UCI Men's basketball team, has recently suffered a broken wrist on his right hand and is now currently unable to take notes in class. He decides to use UCI's DSC services to register for a DSC account in order to get a notetaker for lecture.

Harrison goes online and types in http://www.dsc.uci.edu and is taken to the hompage of the DSC. Harrison checks the services and accommodations offered by the DSC website and sees that he can register for services there. Harrison reads the instructions on how to register for a DSC account and clicks on the link to complete an online registration form.

Since this is his first time online for the day, Harrison logs in with his UCInet ID and password in order to gain access for registry, and then agrees to the confidentiality statement that shows up shortly after. At the registration page, Harrison fills out the form, ensuring that he fills out the mandatory fields in addition to any other fields he sees necessary and that others should be aware of. After progressing through and completing the questionnaire at the bottom of the page, Harrison submits the form and exits out his browser window after he reaches the "Thank You" page.

Scenario #2a: Signing up for notetaking
- Shirelle wants to sign up for notetaking for her class this quarter. She proceeds to log onto MyDSC and then clicks on the link "Accommodation for Faculty" on the MyDSC home page.
- Once Shirelle clicks on the link, Shirelle is navigated to a page that further explains what the Faculty Notification Letter is all about. Because she's interested and eligible for these service, she clicks the, "Click here to continue" link.
    - If not logged on: Shirelle must click the big LOGIN button to sign into her UCI netID account.
    - If logged on: Shirelle must enter the correct information for her course, such as the year and quarter of the course of her course. Once this is completed, she must press the "Set Year/Quarter" button.
        - If she accidentally sets the wrong year, quarter, or both, she must select the, "Change Year/Quarter" button in order to effectively modify those fields.
    - Once she's set her course year and quarter information, Shirelle must also make sure to add each course code individually into the "Add Course" field. Once she's typed in her desired course code, she must press the "Add Course" button after each course is entered. Once completed, Shirelle must click the "Submit Schedule" button so that myDSC can process her request.
    - On the next page, Shirelle must confirm whether she needs notetaking services for her class through the drop-down menu. Once she confirms this, she must submit her request and she's all set for her class(es).

Scenario #2b: Checking the Testing Accommodations
   -Now that Shirelle's signed up for note taking and testing services through the Faculty Notification Letter, she wants to make sure that she remembers when all of her tests are.
   -First, Shirelle must navigate to the "Testing" hyperlink/tab in the rightmost corner of the page.
   - Once there, Shirelle must use the drop down menus to select the proper year and quarter for her courses. In addition, Shirelle can then modify how she would like the testing results to be arranged, and can choose to have them arranged either by "Course"

or "Date/Time". Once she's completed creating her desired search methods, Shirelle must click the "Search" button in order for the system to take in her search request.

       -Once she's completed her search, the box at the bottom of the screen. Based on the desired "sort by" method, the courses will be sorted differently.

       -don't know what happens much after this (like what we can do)-- waiting on Somphone's email

----
Scenario #3 Ordering Ring Road Rides

Fall quarter is just about to start and Johnny wants to make sure he has a ride to all of his classes for the quarter. He navigates to the DSC website and clicks on the "MyDSC" menu. He enters his credentials and arrives at the "MyDSC Dashboard" where clicks the "Ring Road Rides" hyperlink.

If not pre authorized:
Johnny fills out the "DSC intake form", and meets with a DSC specialist in order to become eligible.

If authorized:
Johnny selects "MyLocations" in order to input his favorite campus locations. He enters Aldrich Hall and saves his selection.

He then presses the "MyRides" menu. He knows that just for the first week of class, he'll be sitting in on some extra classes to help him decide his final schedule. He selects the "specific" radio button and enters Thursday's date in the text field provided. He enters 11:00 am using the drop down menus. Selects Aldrich Hall as his pickup location and DBH as his drop off location, and clicks "Add Specific Request" to process the specific request.

He know that he's pretty firm on keeping his ICS class so he enters this recurring ride by selecting the "recurring" radio button, selecting Monday, Wednesday, and Friday, and entering 2:00 pm using the drop down menu. He then chooses Aldrich Hall as his pickup location from the drop down menu of his locations, and DBH from the drop down menu of his locations. He enters the start date of the recurring ride to be Friday of week 0, up until Friday of week 10. He selects "Add Recurring Request" in order to process the ride request.

Scenario #4: Site Navigation:
Goals:
Find out where to apply to be a dsc note taker
Learn more about being a dsc note taker
Apply to be a dsc note taker

Joe is a very studious student that takes very neat notes. He also likes helping others, so when he heard about the opportunity to take notes for DSC he wanted to apply to be a DSC Note Taker.

When first accessing the homepage of the dsc website, Joe notices a yellow apply to be a DSC Note Taker button on the page. After pressing it, he is taken to a webpage that gives him an overview of the position.

Alternatively, Joe misses the button on the first page and instead tries to find it through the drop down menus. He finally guesses it would probably be under student resources because he is also a UCI student. He finds the button which takes him to the overview page.

He realizes he meets all of the criteria so he clicks continue at the bottom of the page to apply. On this next page, the application process is explained in depth. After reading the information he decides to apply, he is taken to a form where he enters in general information then the next page asks him to enter course codes for courses that he can take notes for. He is then taken to a confirmation page and sent a confirmation e-mail.

A4. User Tasks for Usability Test

User Tests

1. Online Registration Form (Apply for Services at DSC)
   1a. Use the 'Apply for Services' button
   1b. Click on the 'Services and Accommodations' dropdown tab and click on 'Registering   for Services
   2. Click on the 'Complete the Online Registration Form' link
   3. (If not logged in) Log into Triple E
   4. Select 'I agree' for the confidentiality statement and press 'Submit'
   5. Fill out the registration form with the required fields marked with a red asterisk and press 'Submit'
2. Faculty Notification Letter (myDSC) **~5-8 minutes**
   a. Signing Up for ARF
      i. Steps:
         1. Sign into myDSC [if not signed in before]
         2. Find Accomodation Letter for Faculty Link and click on it
         3. Set quarter to 2016, Spring [tell user this]
         4. Add Course 99990 [tell user this]
         5. Submit Schedule
         6. Ask them to sign up for notetaking services [notify them that they will receive an email from DSC]
   b. View Test Dates **~3-5 minutes**
      i. Steps

   1. Once done with the Faculty Notification letter, have them
    try to navigate to the Testing section on the site
  ii. In the Testing section, have them look up whether they have any
   test due. Once they find it, have them tell you the test day, time,
   and what materials are needed for the test.
3. Sign up for Ring Road Rides (myDSC) [set specific date, try doing a weekend
 date?]
 a. Set DBH and Aldrich Hall as your "MyLocations" spot
 b. Set one recurring ride (MWF @2:00pm current day until June 10th)
 c. Set one one time ride (May 31 @4 PM)
4. View Orientation Video
 a. Button at the bottom of the home page
 b. Text link at the bottom of the home page, under the Button
 c. Link under "Student Links" sidebar on homepage
5. Navigate to Forms & Publication > Open Verification of Impairment Form (PDF)
 a. Black horizontal bar accessible throughout whole website
6. Services and Accommodations seeing how they deal with links that lead them
 down a page rather than links that redirect them to new pages
 a. Click Eligibility for Services
 b. Scroll back up the page
 c. Click Registering for Services
 d. Navigate back to Services and Accommodations

A5. Interview Protocol

Interview Questions

1. Were there any specific difficulties or problems that you have encountered when
 using the website?

2. What aspects of the website were easy to navigate?
3. How do other sites accommodate you?/ What do other sites do to make them
 easier to use?
4. On a scale of 1-5 (1 being very comfortable, 5 being pretty uncomfortable), how
 comfortable do you feel in your abilities to navigate the website? Why?

 Account Registration
 1. On a scale of 1-5 (1 being easy to navigate, 5 being difficult to navigate)
  how easy was it for you to find the Online Registration Form using the
  'Apply for Services' button?
 2. On a scale of 1-5 (1 being easy to navigate, 5 being difficult to navigate)
  how easy was it for you to find the link to the Online Registration Form
  using the 'Services and Accommodations' tab?
 3. How would you describe the process of locating the online registration
  form?

4. Did you have any problems while filling out the online registration form?
5. How would you describe your experience of registering for a DSC account?

Faculty Notification Letter

1. On a scale of 1-5 (1 being easy to navigate, 5 being difficult to navigate), how would you rate the overall process for signing up for notetaking services? Why?
2. Was filling out the form particularly intuitive or difficult to implement? Why/ why not?
3. Once you finished applying for notetaking services, did you find it easy or difficult to navigate to the next task? Why/ why not?
4. For the Testing section, how would you describe your experience in trying to find out when your tests were scheduled?
5. Was there any part of the way the Testing information was relayed to you that you particularly enjoyed or disliked? Why/ why not?
6. Once you finished looking up your tests, did you find it easy or difficult to navigate to the next task? Why/ why not?

MyDSC Rides

1. On a scale of 1-5 (1 being easy to navigate, 5 being difficult to navigate), how would you rate the overall process for signing up for ring road rides? Why?
2. Were you able to navigate to the "MyLocations" menu without problems? If so, what were they?
3. Did you have difficulty setting your location on the "MyLocations" menu? If so, what were they?
4. Were any of the steps in scheduling a Ring Road Ride confusing? If so, what about the step was confusing?

MyDSC in general

1. On a scale of 1- 5 (1 being intuitive, 5 being difficult to navigate), how would you rate your overall experience navigating the myDSC portion of the website?

A6. Interview Analysis Table

Interview (Chronological)	Issues	Recommendations	Analysis/Theme
5/6:completely blind	-Bugs with how the form interacts with JAWS -Multiple Typos in website -Should say which fields are not filled, color highlights don't help visually impaired -Difficulty going back to homepage -Extra Links to go to Sign-in which are unnecessary -Multiple submit buttons don't make sense -Having a list of buildings rather than the list of boxes on the ring road rides -In the boxes having full names would help screen readers -Specify the needed format in an example (month/date/year) -Being able to navigate to DSC homepage or mydsc homepage with a button would be helpful -Making orientation video or new student resources more visible -PDF files are hard for JAWS to handle	-Test website with popular screen reader/ usability programs -Spell Check typos -When telling user that fields need to be filled specify which ones -Buttons to get back to DSC or MyDSC homepage on every relevant pge -Do away with unnecessary click to login pages -Have only one submit button on the faculty notification letter -Have a drop down list of buildings as an alternative search format -Having the names of buildings in addition to Acronyms and if only one is possible choose full names -Make new student resources more prominent -Limit use of PDF files when possible	- usability with screen readers - fields need to be specific - backwards navigation (back to homepage) - no unnecessary features/ simplicity
5/9:Partial vision user; needs good lighting, strong color contrasts, strong borders between text, links, buttons, etc	-Applying for Services -Difficulty finding online form to sign up for services; needed help to eventually find it -Had trouble finding and selecting "I agree" on confidential page (did not see the last "I agree option" and found the 2 blanks confusing in the drop down and believe that is why he did not spot the "I agree" right away (until we helped) -Faculty Notification Letter	-Applying for Services -Expressed that log in should have a different color because the background was white and the button lacked contrast -Suggested that text fields should have a little background to know where to fill in form. No contrast and found it at first glance to be difficult to see -Text boxes could be bigger -when the error comes out that a field is missing, it should be	-Buttons, textboxes, etc. need to be more noticeable/ have more distinctive qualities on the site -Need to have a better color contrast throughout site -This should be uniform amongst all sites relating to DSC -Things should be displayed in quick, easy to understand places

-Looking at Test Dates -Couldn't find the option for viewing Test Dates, had help from us -Found that all the links at the top of My DSC to be hard to see -Ring Road Rides -Cannot see the "highlighted" ones that he selected for location in Rides and was unclear if he had selected anything (no contrast) -found the picking of a date to be confusing -Orientation Video -Went to Orientation Videos Intake Forms, but the page has no orientation video -Trouble finding video, looking through multiple tabs -Eligibility of Services -Scrolling through home page looking for it	highlighted so it's easier to tell which field is missing -Faculty Notification Letter -Expressed that links on My DSC could be bigger font and background could change colors -Text field and background colors has almost no contrast and it is difficult to find (first time he said he couldn't find the text field, but now that he's done it a couple quarters he knows) -Ring Road Rides -Under "My Rides" dropdown could be bigger and instead of having tabs for each link on my DSC it could come to the center -The calendar popup could go down instead of above and be more contrasted -Orientation Video -Could have a link from My DSC to home page, he doesn't' see a link even to myDSC -Found it on the side under Student Links -Suggested moving it to student resources drop down as well -Eligibility of Services -Express home page should put a link to eligibility of services under Welcome -General Recommendations -Contrast should be in text box background -highlighting fields with errors -bigger font -when he selected location in Ring Rides, maybe they could use pop up because it could be helpful. -Pop up meaning dialog box should come out when you select a location. -Site is easy to use but filling out the form [registration] could be better.	-Examples: -Don't need 2 blanks for a drop down menu -Should have multiple locations for certain links -Applying for services should more noticeable on the homepage but also should be found in a place like Student Resources or something more intuitive to the navigator -Utilize space you have-make text bigger, make clear distinctions between different sections/textboxes/etc. -Error prevention- make it obvious when errors occur -Play on user assumptions-if using a calendar, make sure it drops down rather than goes up -There's no point in being fancy, need to play on user assumptions and intuitions

| 5/10: Completely Blind | Online Registration Form
-Shortcut key for screen reader is supposed to identify all buttons on the website but doesn't identify this "register" as a button, instead thinks it's a link
-Selecting major is implemented well
-Email field requires "@" to complete form
-Edit box for alternate email misreads title on screen reader
Faculty Notification Letter (myDSC)
-View Test Dates
-When there are tables, he has to keep track of each column, screen reader reads each column before it reads each row, so it's difficult to follow because he has to remember a lot of information
-Sign up for Ring Road Rides (myDSC) [set specific date, try doing a weekend date?
-Recurring rides is formatted intuitively because of the format of the dates
-He thinks it would be easier to have combo boxes instead
-Pickup date is formatted confusingly when you have a screen reader
View Orientation Video
-Requires plugin which he didn't have
Navigate to Forms & Publication > Open Verification of Impairment Form (PDF)
-PDF defaulted to PDF reader program on computer
Services and Accommodations seeing how they deal with links that lead them down a page rather than links that redirect them to new pages | - Implement more consistent HTML tags so it reads more smoothly instead of inadvertently reading one tag as two
- Format tables in a more consistent way, where instead of headers being read one by one, have each column be read
- Since it seems to provide a much more navigable user experience and makes it more convenient in navigating through lists, implement more combo boxes

Specifically, for setting the date for recurring rides, have a combo box to toggle through months, day and year

- Have a more sensible date format in signing up for a Ring Road Rid
- Fix bug that reads invisible 'Alternate Email' header in online registration form
- Fix bug for button on 'Apply for services at DSC' to read as a button instead of link | - HTML tag formatting of some sections of the website make it easier for the user to navigate through the page

E.g. Combo boxes seem to be favorable since the user simply has to type in the first letter of an option and go from there

- Inconsistent HTML tag formatting of tables results in harder navigation and "extra information" that the user needs to remember; essentially just confusing for the user because some tables read column by column while others don't

E.g. The table full of test dates; reader reads each section linearly instead of column by column, and requires the user to remember how many headers there are for each row and the resulting information associated with each header

E.g. "Pick up Date' in selecting single rides reads "Pick up" and then "Date" as two separate options and "Pick Up Location" reads "Pick up" and then "Location" |

| 5/18: Cerebral Palsy | - Testing section:

-Couldn't find testing tab to navigate to section right away

- Ring road rides:

-Couldn't find DBH when looking through lists for favorite locations.

-My Rides:
-Had some trouble finding myRides tab

- Information pre populating the forms but agreed that it may be because of web browser (Chrome)

- If didn't have the ability to zoom, making text larger would be needed

- If had to fill out registration form with real information that included paragraphs of text, then

would have used co-writer to fill them out. | - Important that software is compatible with assistive software

- Adding a magnifying feature just in case browser or device being used to access the website

does not include the feature

-Has visited websites that have magnifying feature built-in

- Word prediction when filling out fields of forms or other text boxes throughout the website. If

could pick from set of words, it would make it quicker.

- Want to be as efficient, and accurate as possible ("We don't want to spend all day filling out a form that takes you guys two minutes.")

- Anything to make the website more efficient.

- If many drop downs or questions, try to have text box larger or font type different for different

parts of the interface.

- Textboxes on registration forms should differ from each other visually. | - Efficiency, and precision very important

-Suggestions for word prediction may help increase efficiency if done correctly

-Seemed to get a little frustrated when the registration form was getting pre

populated with his personal information. This seemed to be happening due to

the web browser being used (Google Chrome)

- The ability to clearly see text and differentiate textboxes important |
| 5/20/2016: completely blind | Registration Form

• Screen reader reads alternate email address field incorrectly

• On confirmation of online registration page, confused because there was a "submit" text and a | -more headings rather than links, because headings are easier to navigate by just pressing "h"

• praised applevis.com for its usability and headings | • headers are crucial for him and other people using screen readers

• fields need to explicitly state the format required for them |

	"submit" button, and on jaws it read both to him but he thought the first "submit" was the button not the second one Faculty notification letter • had trouble finding note taking services because was looking for a link or button • had difficulty finding testings because the lack of headings on the page Ring Road Rides (opened on new window but he was unaware) • Was confused what "Recurring end date" field was because it never says what it wants, only says graphic edit via jaws • Was confused about which format the dates were to be entered in, no format specified • For specific ride, had trouble with graphic edit pick up date Find forms and publication • Realized from the ring road rides, this was on separate window and had no trouble getting back to DSC homepage window	• specify format for ring road rides request • opening new tabs and windows should be avoided unless completely necessary • wanted headers linked to fields, so he knew what he would be looking for	• buttons and text should be differentiated for screen readers