Usability Report
JMU Counseling Center Website

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April 3, 2020

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Executive Summary

In partnership with the JMU Counseling Center, I examined the current Counseling Center website to uncover any possible obstacles to the site's usability. I proposed performing two types of usability testing for this study: heuristic evaluations and card sorting.

JMU suspended most on-campus academic and departmental activities due to the COVID-19 outbreak shortly after I recruited participants and scheduled in-person testing sessions for each method. As a result, I adjusted the testing phase of the study to accommodate the new safety measures. Once JMU suspended on-campus academic activities, moved classes online, and encouraged students to stay off campus for the remainder of the school year, I was unable to move forward with the card sort tests. Despite eliminating the card sort tests, I was able to successfully conduct the remainder of the usability study by advancing with the heuristic evaluations.

I recruited two participants to perform heuristic evaluations of the Counseling Center website. Both participants are members of the Counseling Center staff, and neither were familiar with usability principles before agreeing to participate. One heuristic evaluation took place in-person, and one took place virtually.

The evaluators provided overwhelmingly positive feedback on the state of the Counseling Center website. Overall, their evaluations revealed that the site is organized well and easy to read and understand. The evaluators uncovered minor issues with the efficiency of several pages, as well as instances of outdated information.

In the "Discussion and Recommendations" section of this report, I have synthesized my findings from the study and outlined recommendations for improvements to the website and future usability testing.

Usability Report: JMU Counseling Center Website

Students are using on-campus mental health resources more than ever before (Boysen and Vogel 446; Holland and Wheeler 17; Lipson et al. 61; Rakow and Eells 8). Indeed, the rate of students seeking counseling services has dwarfed the growth rate of institutional enrollment in recent years (Holland and Wheeler 17; Boysen and Vogel 447; Rakow and Eells 8). As the trend of students seeking counseling services on their campuses steadily increases, the online presence of those university counseling centers becomes increasingly important. In partnership with the JMU Counseling Center, I examined the current Counseling Center website to uncover any possible obstacles to the site's usability. I proposed performing two types of usability testing for this study: heuristic evaluations and card sorting.

Methodology

I created testing materials for both heuristic evaluations and card sorting. Heuristic evaluations are a type of usability analysis where a limited number of participants are asked to engage with an interface design and comment on their experience (Nielsen and Molich 249). These evaluations are typically used as a cost-effective method of usability testing, since they require less participants than many other methods (Barnum 201; Dykstra iii). Card sorting, on the other hand, is a method of usability research in which study participants organize individually labeled cards according to criteria that makes the most sense to them ("Card Sorting" *Usability.gov*). This type of test is used to uncover any aspects of a website's structure that may be obstacles to the site's usability.

JMU suspended most on-campus academic and departmental activities due to the COVID-19 outbreak shortly after I recruited participants and scheduled in-person testing sessions for each method. As a result, I adjusted the testing phase of the study to accommodate the new safety measures.

Audience

The Counseling Center's primary goal for the website is to provide information on services and resources to members of the JMU community. There are four groups of JMU community members most likely to visit the Counseling Center website: students, parents or guardians, faculty, and administrators. Of these four groups, the primary users of the website are students searching for information about counseling services and other resources offered by the Counseling Center.

Participants

I limited participants in the card sort test to students, since they are the primary users of Counseling Center services and the primary audience of the website. Once JMU suspended on-campus academic activities, moved classes online, and encouraged students to stay off campus for the remainder of the school year, I was unable to move forward with the card sort tests.

When recruiting participants for the heuristic evaluation, I narrowed my search to individuals familiar with the JMU Counseling Center website's mission, goals, values, and audience. I also focused my recruitment efforts on individuals with a general knowledge of web design. With this scope in mind, I recruited two participants for the heuristic evaluation. Both evaluators work for the Counseling Center: one as a clinician and one as a front desk staff member. As staff members, the evaluators are intimately familiar with the Counseling Center website's mission, goals, values, and audience. Furthermore, each evaluator has some background knowledge of web design. Neither participant was familiar with usability principles before agreeing to perform this heuristic evaluation.

Test Creation and Facilitation

I facilitated the heuristic evaluation over two separate test sessions, so the thoughts and opinions of each evaluator remained distinct. To ensure the participants felt comfortable as they performed their evaluations, I allowed them to choose their testing spaces. Initially, I intended to hold both test sessions in-person, in a space free of distractions and with a computer. After scheduling face-to-face sessions with both evaluators, JMU transitioned most departments from in-office to teleworking as a result of the COVID-19 outbreak. The Counseling Center is an essential department on campus, and as such, remained open. Out of concern for the safety and comfort of the evaluators, I offered to adjust the test materials to allow for a virtual session. One evaluator expressed interest in a virtual session, while the other was still comfortable meeting in person.

For both the in-person and the virtual heuristic evaluation sessions, I developed a pre-test brief, a post test debrief, a user persona handout, a heuristics handout, a severity codes handout, and a session notes template. With the exception of the briefs, user persona handouts, and debriefs, each evaluator received the same materials. I provided each evaluator with a "user persona" to guide their evaluations. The evaluators received different persona handouts, but I created both personas based on the target audience of the Counseling Center website. I designed the brief and debrief documents to act as scripts for me to read to the evaluators during the testing session. Though I kept the information in the briefs and debriefs constant between the in-person and

virtual testing sessions, I adjusted the layout and wording slightly to fit the different test session formats.

I provided both evaluators with access to "Nielsen's 10 Usability Heuristics for User Interface Design" before their test sessions, and detailed exactly what their role as an evaluator would be, since neither was familiar with usability principles or heuristic evaluations prior to participating in this study. In each test session, I asked that the evaluators use the 10 heuristics and the "user persona" to guide their examination of the Counseling Center's website. I provided them with the heuristics handout, which lists the heuristics alongside an explanation of the types of usability issues that fall under each heuristic. I asked that the evaluators assign heuristics to usability issues as they encountered them during the test sessions. At the conclusion of the test sessions, I debriefed with the evaluators. During the debriefing, we discussed their evaluations and general experience of the website.

Test Environment

My goal in facilitating this usability study was to ensure each evaluator felt as comfortable and stress-free as possible in the testing environment. This goal became even more important as JMU reacted to the COVID-19 pandemic. As JMU transitioned to teleworking and online classes, I reached out to each evaluator to offer a virtual heuristic evaluation option. One participant decided to move forward with their in-person session as planned, while the other expressed that the virtual option would make them most comfortable. Both participants performed their evaluations in quiet, distraction-free environments: one in a home office and one in a Counseling Center office.

Validity

Two possible threats to the validity of heuristic evaluations in usability studies are the "loose definition of the expert user and a less than solid understanding of that user's background knowledge and personal biases" (Wenger and Spyridakis 268). In this study, I combatted these threats by using participants from similar backgrounds, and with equal knowledge of usability principles. Though the evaluators worked in different environments to complete their evaluations, I provided them with the same information in their testing materials to ensure that the difference would not impact the validity of the study.

Results

The heuristic evaluators used the "user personas" I provided to guide their navigation and subsequent evaluations of the Counseling Center website.

In-person Session

The first heuristic evaluator (HE), a member of the Counseling Center's front desk staff, began the session with several positive comments about the site. The HE stated that the website is "very well organized" and "pretty efficient."

Continuing to navigate the site, the HE added that the "wording is great, [and] the plain language is easy to understand." As they moved to the 'About the Counseling Center' overview page, the HE stated "this commercial's a bit older" (see Figure 1).

Figure 1. JMU Counseling Center Commercial

While scrolling through the "About the Counseling Center" overview page, the HE also stated: "I'm surprised we don't have our tree [logo] on here except for in the commercial." The HE then noted that the diversity statement at the bottom of the "About the Counseling Center" page would be "good to see" as a prospective patient.

Next, the HE navigated to the "Who We See and Why" page under the "About the Counseling Center" tab in the sidebar. Reading through the content on this page, the HE remarked: "this might be a little text heavy, but it's all readable." The HE continued, noting the formatting helped the readability of the page (see Figure 2).

Figure 2. Who We See and Why Page

The HE moved on to the "Counseling Center Staff" page, navigating the sidebar easily once more. They commented that the photos of the staff are a "nice addition" to the page (see Figure 3).

Figure 3. Counseling Center Staff Page

The HE specifically pointed out: "prospective patients can see what clinicians look like, which is helpful."

Reading the rest of the menu options under the "About the Counseling Center" tab, the HE complimented the site's organization again, stating: "I feel like the website is pretty well organized." The HE mentioned that the tab devoted to driving directions would be helpful for students trying to find the Counseling Center for the first time. The HE clicked on several more tabs in the sidebar and commented that the way the dropdowns opened and closed "makes a lot of sense." They elaborated, stating: "I like that you can open all the tabs and look at everything at once, or close them as you go along and keep things hidden and organized."

Next, the HE navigated through the "Services for Students" section of the sidebar, landing on the "Self-care Spaces" tab. They skimmed the page and commented, "the Oasis pictures could be updated, we've rearranged the space since then" (see Figure 4).

Figure 4. Self-care Spaces
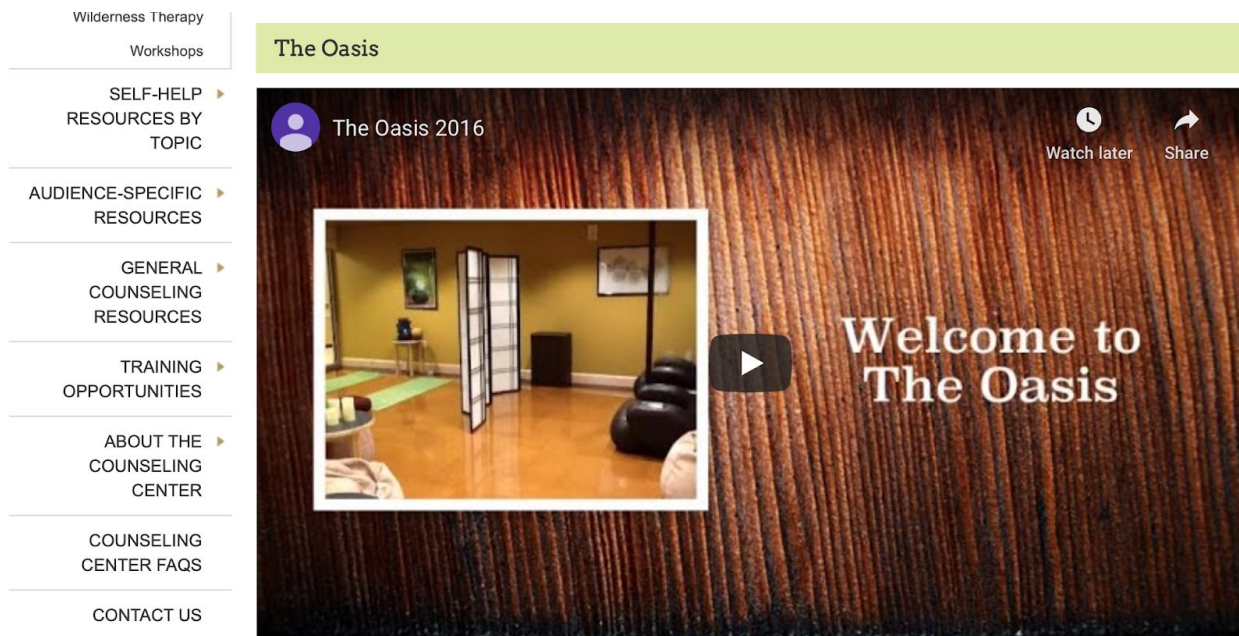
After looking at the "Self-care Spaces" page, the HE navigated to the "Counseling Center: Biofeedback" page. The HE scrolled down and immediately pointed at the "How You Can Use Biofeedback" section, stating "this is out-of-date." They indicated the second bullet point in the section and elaborated on their initial comment, noting "Alive isn't in the Oasis anymore, there's no desktop cart in there" (see Figure 5).

Figure 5. How You Can Use Biofeedback Section

How You Can Use Biofeedback

What is available at the CC:

— *Inner Balance* is an iPad app. It uses an ear sensor to measure heart rate and provide guidance about how to improve heart rate coherence and breathing. You can check out the iPad and ear sensor from the front desk. You can also plug in headphones to hear the auditory prompts. There are instructions and an introductory video available. This is great for a quick, accessible way to practice optimizing your heart rate and increasing relaxation.

— *Alive* is computer software installed on the desktop cart in The Oasis. You need the Iom finger sensors to use this software. This program provide numerous opportunities to practice skills in visually engaging and dynamic environments. You can practice skills like diaphragmatic breathing, progressive muscle relaxation, and guided imagery or pick an environment where you race cars, build a house, or cause to flowers bloom all controlled by your heart rate. Make sure to complete the orientation in the program to familiarize yourself with the software.

The HE assigned heuristics to several aspects of the website they noticed during their evaluation (see Table 1).

Table 1. In-person Session Heuristic Assignments

Comment	Heuristic(s)
"very well organized"	Visibility of system status, Recognition rather than recall, Flexibility and efficiency of use
"pretty efficient"	Visibility of system status, Flexibility and efficiency of use
"wording is great, [and] the plain language is easy to understand"	Match between system and the real world, Consistency and standards
"this might be a little text heavy, but it's all readable"	Consistency and standards, Aesthetic and minimalist design
"I like that you can open all the tabs and look at everything at once, or close them as you go along and keep things hidden and organized"	Visibility of system status, Recognition rather than recall, Flexibility and efficiency of use
"the Oasis pictures could be updated, we've rearranged the space since then"	Match between system and the real world
"this is out-of-date… Alive isn't in the Oasis anymore, there's no desktop cart in there"	Match between system and the real world

Once the HE finished their evaluation of the Counseling Center website, we began the debriefing portion of the testing session. I intended to ask the HE to assign severity codes to each problem they discovered over the course of their evaluation during the debrief, but because their comments were primarily positive, I made a slight adjustment. I asked the HE to evaluate the severity of the two problems they did discover on the website (see Table 2).

Table 2. In-person Session Severity Code Assignments

Comment	Severity Code
"the Oasis pictures could be updated, we've rearranged the space since then"	Cosmetic Problem
"this is out-of-date… Alive isn't in the Oasis anymore, there's no desktop cart in there"	Major Problem

The HE decided the out-of-date Oasis pictures are a cosmetic problem, since they do not negatively contribute to the overall usability of the website. The HE determined the information on the program no longer offered in the Oasis is a major problem, elaborating that the misleading text might lead to disappointment or confusion for students.

Virtual Session

Instead of working face-to-face with the second evaluator, in real time, I worked with them virtually. I gave the second HE access to the test session materials via Google Drive after adjusting the materials to suit the new virtual, self-guided evaluation. The HE took notes on their experience of the website as they performed their evaluation, then sent them to me along with their answers to the debriefing questions.

The HE began their perusal of the site by looking at the self-help resources. From the Counseling Center homepage, they opened the "Self-Help Resources by Topic" tab in the menu and clicked on "Anxiety." While scrolling through the "Anxiety" self-help resources, they noted that the page did not contain information on TAO anxiety resources. Providing more detail, the HE wrote that the lack of link to the TAO resources will prevent students from "see[ing] there are evidenced-based specific treatment modules potentially relevant to assist with [their] treatment needs available for free with 24/7 access through the TAO psychoeducational platform." They added: "it may be a missed opportunity to promote and connect students efficiently to TAO."

Navigating away from the self-help resources, the HE clicked on the "Services for Students" tab in the sidebar next. The HE commented on transitioning between the pages, and wrote: "this may be intentional to leave self-help separate from our individual counseling or treatment program resources." Elaborating, the HE wrote that consolidating the types of resources offered by the Counseling Center to fewer locations on the site "may be helpful" in connecting students with "the most relevant information efficiently." The HE commented that this might be another "missed opportunity to most efficiently empower students to connect with the resources most relevant to their needs."

The HE viewed the "Individual Counseling" page next. They noted that if a prospective patient has needs that do not make the JMU Counseling Center the most recommended form of treatment, "another few clicks at the bottom of this page" would provide "more information about how to connect, and what ways we may be able to offer support and/or connect [them] with other resources." The HE observes that they are "not sure" if there is a more efficient way of organizing the page.

Then, the HE moved to the "Your First Visit" page. Commenting on the image content of both the "Your First Visit" and "Individual Counseling" pages, the HE wrote: "on those two pages it

seems like we could find images that may be more general, inclusive, and reflective of the diverse students we welcome and serve."

The HE assigned a heuristic to each of the comments they made during their evaluation (see Table 3).

Table 3. Virtual Session Heuristic Assignments

Comment	Heuristic(s)
The "Anxiety" self-help page does not link to TAO resources	Consistency of use, Flexibility and efficiency of use
Information on Counseling Center services are spread out in multiple locations on the site	Recognition rather than recall, Flexibility and efficiency of use
Finding more information on connecting with resources beyond the JMU Counseling Center takes extra navigation	Flexibility and efficiency of use
The photos at the top of the "Your First Visit" and "Individual Counseling" pages depict little diversity	Match between system and the real world

At the end of their evaluation, the HE assigned a severity code to each of the problems they encountered during the session.

Table 4. Virtual Session Severity Code Assignments

Comment	Severity Code
The "Anxiety" self-help page does not link to TAO resources	Minor Problem-Major Problem
Information on Counseling Center services are spread out in multiple locations on the site	Minor Problem-Major Problem
Finding more information on connecting with resources beyond the JMU Counseling Center takes extra navigation	Cosmetic Problem-Minor Problem
The photos at the top of the "Your First Visit" and "Individual Counseling" pages depict	Major Problem

little diversity	

The HE decided that not linking to the TAO resources from the "Anxiety" self-help page is an issue straddling the line between being a minor and major problem. They observe that keeping different self-help resources for anxiety separate on the site might be unhelpful to students seeking those resources.

The HE determined that having information on services offered by the Counseling Center is spread across multiple locations on the site and that finding more information on connecting with resources beyond the Counseling Center takes extra navigation are both minor problems. Distinguishing between the severity of the two, the HE notes that the former issue is on the border of being a major problem, while the latter is on the border of being a cosmetic problem. The HE comments that both issues could negatively impact a student's ability to navigate the site efficiently.

Finally, the HE concludes that the lack of diversity within the photos at the top of the "Your First Visit" and "Individual Counseling" pages is a major problem. The HE writes that making the images more inclusive and reflective of diverse students is a "priority" because the Counseling Center "work[s] hard to connect with all students across campus."

Discussion and Recommendations

Neither of the evaluators encountered catastrophic problems in their heuristic evaluations of the Counseling Center's website. Indeed, the first evaluator's comments on the site were overwhelmingly positive. The issues that the evaluators did bring up are not insignificant, however, so I have developed several recommendations for the Counseling Center's website based on the results of this study. I have also developed several recommendations for future usability testing of the site.

Recommendations for the Website: Content

The first HE pointed out that the information on the Alive program in the Oasis featured on the "How You Can Use Biofeedback" page is outdated. I recommend removing this content in order to prevent any confusion about what is offered in the Oasis.

Further, both evaluators made comments about photos featured on certain pages of the Counseling Center website. The first HE noted that photos of the Oasis were out-of-date, since the space had been rearranged after the photos were taken. I recommend updating the photos to reflect the updated arrangement of the space. The second evaluator observed the lack of diversity represented in the photos of the Counseling Center on the "Your First Visit" and "Individual

Counseling" pages. I agree with the HE that including photos with more diverse groups of people in them would better reflect the Counseling Center's strong commitment to inclusion, so I recommend uploading new images to these pages as well.

Recommendations for the Website: Efficiency

Many of the second evaluator's comments concerned the efficiency of the Counseling Center website's organization. I recommend exploring ways to consolidate information, or provide more direct links to information, throughout the site to allow for greater navigation efficiency. Specific ways to increase the website's efficiency could be identified by conducting a card sort test.

Recommendations for Future Testing

I recommend the addition of a card sort test in future usability testing of the Counseling Center's website. A card sort test would reveal any specific problems within the site's organization and structure, and give the Counseling Center concrete data on how their audience perceives the site's organization. Conducting card sorts would also allow the Counseling Center to more thoroughly investigate the concerns voiced by the second evaluator about the efficiency of the site's structure. I have created materials for the Counseling Center to use when conducting future card sort tests of the website, listed in Appendix K-O of this document.

Furthermore, I recommend that future usability tests of the Counseling Center's website involve more participants and more diverse participants. Including a larger and more diverse group of participants would provide the Counseling Center with more data and the opportunity to receive feedback from a wider range of the website's audience.

Next Steps

I appreciate having the opportunity to conduct this usability study and contribute to the improvement of the JMU Counseling Center's online presence. Overall, the Counseling Center's website is well-organized, readable, and easy to follow. By making the small adjustments I have recommended, the site will be an even better online representation of the Counseling Center.

Works Consulted

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Appendix A: User Profiles and Evaluator Criteria

There are four subgroups of JMU Counseling Center website user types: students, parents or guardians, faculty, and administrators. These four groups are based on the four groups of people most likely to visit the JMU Counseling Center website intentionally. When conducting heuristic evaluations of the Counseling Center website in the future, it is important to engage participants that fall within at least one of these four groups and have these characteristics for the sake of testing consistency.

Group A: JMU Students
- Must be a current JMU student.
- Grade level, or amount of credit hours is not a limiting factor; an ideal participant group would include participants from a variety of grade levels: first years, sophomores, juniors, seniors, graduate students, and doctoral students.
- Major or program affiliation is also not a limiting factor; an ideal participant pool should include participants in a variety of majors and programs.

Group B: Parents or Guardians of JMU Students
- Must be the parent or guardian of a current JMU student.

Group C: JMU Faculty
- Must be a current member of the JMU faculty.
- Ideal participants should have a variety of job titles: Instructor, Lecturer, Assistant Professor, Associate Professor, Adjunct Faculty, and Affiliate Faculty.
- Seniority level is not a limiting factor; an ideal participant pool should include faculty members in varying stages of their careers: tenure-track faculty and nontenure-track faculty.
- Department or program affiliation is not a limiting factor either; an ideal participant group should include faculty that teach in a variety of disciplines.

Group D: JMU Administrators
- Must be a current member of JMU administrative staff.
- Department and job titles are not limiting factors: an ideal participant pool should include administrative staff from a variety of JMU departments and with a wide range of job titles.

Appendix A (continued): User Profiles and Evaluator Criteria

Criteria for Ideal Heuristic Evaluators

In addition to the above criteria, participants in future usability studies should be familiar with the JMU Counseling Center website's mission, goals, values, and audience. Ideal heuristic evaluators should also have some general knowledge of web design and usability principles.

Appendix B: Heuristic Evaluation Brief

Thank you so much for taking the time to help me with this project!

Today, you'll be conducting a heuristic evaluation on the JMU Counseling Center's website using Nielsen's 10 Usability Heuristics for User Interface Design.

To conduct this evaluation, I'd like you to navigate the site with this persona's goals and point of view in mind, and highlight any problems that you encounter along the way. As you notice any problems, please specify which of Nielsen's 10 heuristics they fall under.

The main intention of the Counseling Center's website is primarily to provide students with the resources necessary to be proactive about maintaining good mental health, so I've created a user persona for this exercise that embodies the site's primary audience: **[provide evaluator with persona handout]**.

As you navigate the Counseling Center's site, I'd like you to keep this persona in mind. Think of their goals and point of view, and use your expert knowledge to point out any problems you find. When you identify a problem with the site, please specify which heuristic it falls under.

I'll be taking notes of the problems you come across throughout the session, and once you're finished with your evaluation we'll have a quick debrief and give each of them a severity ranking (using a set of severity codes I'll provide).

Do you have any questions before we get started? **[If no, move on/If yes, answer the question(s).]**

Great, thanks again for taking the time to work with me here today!

Appendix C: Heuristic Evaluation Session Notes Template

Problem: Thoughts:
Heuristic #:
Thoughts: Problem:
                                                      Heuristic #:
                                                      Thoughts:

Problem:
Heuristic #:
Thoughts: Problem:
                                                      Heuristic #:
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Problem:
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Problem:
Heuristic #:
Thoughts: Problem:
                                                      Heuristic #:
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Problem:
Heuristic #:

Problem: Thoughts:
Heuristic #:

Appendix D: Heuristic Evaluation User Persona A

Name: Emily Pearce

Age: 19
Ethnicity: Caucasian
Gender: Female
Preferred Pronouns: she/her
Education: JMU Sophomore, majoring in Industrial Design
Technical Profile: Very comfortable with technology; primarily uses a laptop computer
Internet Use: School activities (research, design programs, Canvas, email), social media (YouTube), and entertainment (Netflix, Amazon Prime)
Hobbies: Sketching, painting, and hiking

Emily Pearce is in her second year of school at JMU. An Industrial Design major, she is taking six courses this semester because she intends to graduate early. Emily is also interning remotely at a prestigious design firm in Richmond. Though she has never been formally diagnosed with an anxiety disorder, Emily often experiences high levels of stress and has panic attacks once or twice a year.

Appendix E: Heuristic Evaluation User Persona B

Name: Juan Encalada

Age: 22
Ethnicity: Hispanic
Gender: Male
Preferred Pronouns: him/his
Education: JMU Sophomore, majoring in English
Technical Profile: Fairly comfortable with technology; primarily uses a laptop computer
Internet Use: School activities (research, word processing programs, Canvas, email), social media (Facebook, YouTube), and entertainment (Netflix, Amazon Prime, Hulu)
Hobbies: Reading (mostly classic fiction), cooking, and trying new foods with friends

Juan Encalada is in his fourth year of school at JMU. An English major, he is taking four courses this semester, and is applying to both graduate programs and full time jobs because he's not quite sure what he'd like to do after graduation. Juan identifies himself as a "Type A" personality, and enjoys being organized and having a clear plan. He is anxious about how many unknowns he faces after graduating from JMU.

Appendix F: Heuristics Handout

Nielsen's 10 Usability Heuristics

1 **Visibility of system status**
The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

2 **Match between system and the real world**
The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

3 **User control and freedom**
Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

4 **Consistency and standards**
Users should not have to wonder whether different words, situations, or actions mean the same thing.

5 **Error prevention**
Even better than error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation before they commit to the action.

6 **Recognition rather than recall**
Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

Appendix F (continued): Heuristics Handout

7 **Flexibility and efficiency of use**
Accelerators — unseen by the novice user — may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

8 **Aesthetic and minimalist design**
Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

9 **Help users recognize, diagnose, and recover from errors**
Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

10 **Help and documentation**
Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

Appendix G: Severity Codes Handout

Barnum's Severity Codes

A **Catastrophe**

The user either cannot complete the task, or experiences extreme frustration at the process of completing the task.

B **Major Problem**

The user can complete a task, but is frustrated and suggests that others might be less inclined to put up with the inconvenience or high frustration level.

C **Minor Problem**

The user experiences little frustration in completing the task, but notes an issue.

D **Cosmetic Problem**

The user might hesitate or pick the wrong option, but is able to correct the error with little to no irritation.

Appendix H: Heuristic Evaluation Post-Test Debrief

Thanks again for taking the time to help me with this evaluation! Now that you've finished your evaluation, we're going to work on rating each of the problems you've come across according to how big of a deal they are to the website's functionality.

Here are the severity codes we'll be using to give each problem a rating. **[Give evaluator severity codes handout]**

The codes range from "catastrophe" (A) to "cosmetic" (D). Catastrophic problems are any issues you found with the website that you believe the Counseling Center needs to address right away. Cosmetic problems, on the other hand, are any minor problems you came across. These are things that would be good for the Counseling Center to consider adjusting in the future, but aren't life-or-death kinds of problems.

Now, I'd like you to take a look at the problems you encountered, and give each one a code.

[Give evaluator time to assign each problem a severity code. As they work, ask them about their thoughts]

Questions to ask during the code-assignment process:
- Can you tell me a little about your thought process as you're assigning each issue a severity code?
- Why do you think the Counseling Center should pay close attention to this/these particular problem(s)?
- Why is this problem not such a big deal?

    [Once the evaluator is finished assigning each problem a code]:

- Do you have any ideas for how the Counseling Center should address the most problematic issues?
- Do you have any thoughts on how to improve the website in general?

Again, thank you so much for taking the time to help me with this project! Your evaluation is going to be so helpful in improving the Counseling Center's website.

Appendix I: Virtual Heuristic Evaluation Brief

Thank you so much for taking the time to help me with this project!

Today, you'll be conducting a heuristic evaluation on the JMU Counseling Center's website using Nielsen's 10 Usability Heuristics for User Interface Design.

To conduct this evaluation, I'd like you to navigate the site with this persona's goals and point of view in mind, and highlight any problems that you encounter along the way. As you notice any problems, please specify which of Nielsen's 10 heuristics they fall under.

The main intention of the Counseling Center's website is primarily to provide students with the resources necessary to be proactive about maintaining good mental health, so I've created a user persona for this exercise that embodies the site's primary audience: **[look over the user persona]**.

As you navigate the Counseling Center's site, I'd like you to keep this persona in mind. Think of their goals and point of view, and use your expert knowledge to point out any problems you find. When you identify a problem with the site, please specify which heuristic it falls under.

I'll be taking notes of the problems you come across throughout the session, and once you're finished with your evaluation we'll have a quick debrief and give each of them a severity ranking (using a set of severity codes I'll provide).

Do you have any questions before we get started? **[If no, begin your evaluation/If yes, ask]**

Great, thanks again for taking the time to work with me here today! When you're ready, get started on your evaluation by visiting this page: https://www.jmu.edu/counselingctr/ and navigate it from the point of view of the user persona.

Make sure to take notes of your thoughts on the site, and don't hesitate to reach out with any questions!

Appendix J: Virtual Heuristic Evaluation Post-Test Debrief

Thanks again for taking the time to help me with this evaluation! Now that you've finished your evaluation, we're going to work on rating each of the problems you've come across according to how big of a deal they are to the website's functionality.

Here are the severity codes we'll be using to give each problem a rating. **[Look over the severity codes handout]**

The codes range from "catastrophe" (A) to "cosmetic" (D). Catastrophic problems are any issues you found with the website that you believe the Counseling Center needs to address right away. Cosmetic problems, on the other hand, are any minor problems you came across. These are things that would be good for the Counseling Center to consider adjusting in the future, but aren't life-or-death kinds of problems.

Now, I'd like you to take a look at the problems you encountered, and give each one a code.

[Assign each issue a severity code, and note your thoughts]

Questions to consider during the code-assignment process:
- What is your thought process as you're assigning each issue a severity code?
  [answer here]

- Why do you think the Counseling Center should pay close attention to the problem(s) you marked as severe?
  [answer here]

- Why are other problems you encountered not such a big deal?
  [answer here]

  [Once you have finished assigning each problem a code]:

- Do you have any ideas for how the Counseling Center should address the most problematic issues?
  [answer here]

Appendix J (continued): Virtual Heuristic Evaluation Post-Test Debrief

- Do you have any thoughts on how to improve the website in general?
  [answer here]

Again, thank you so much for taking the time to help me with this project! Your evaluation is going to be so helpful in improving the Counseling Center's website.

Appendix K: Card Sort User Profiles and Participant Criteria

There are four subgroups of JMU Counseling Center website user types: students, parents or guardians, faculty, and administrators. These four groups are based on the four groups of people

most likely to visit the JMU Counseling Center website intentionally. When conducting card sort usability tests of the Counseling Center website in the future, it is important to engage participants that fall within at least one of these four groups and have these characteristics for the sake of testing consistency.

Group A: JMU Students
- Must be a current JMU student.
- Grade level, or amount of credit hours is not a limiting factor; an ideal participant group would include participants from a variety of grade levels: first years, sophomores, juniors, seniors, graduate students, and doctoral students.
- Major or program affiliation is also not a limiting factor; an ideal participant pool should include participants in a variety of majors and programs.

Group B: Parents or Guardians of JMU Students
- Must be the parent or guardian of a current JMU student.

Group C: JMU Faculty
- Must be a current member of the JMU faculty.
- Ideal participants should have a variety of job titles: Instructor, Lecturer, Assistant Professor, Associate Professor, Adjunct Faculty, and Affiliate Faculty.
- Seniority level is not a limiting factor; an ideal participant pool should faculty members in varying stages of their careers: tenure-track faculty and nontenure-track faculty.
- Department or program affiliation is not a limiting factor either; an ideal participant group should include faculty that teach in a variety of disciplines.

Group D: JMU Administrators
- Must be a current member of JMU administrative staff.
- Department and job titles are not limiting factors: an ideal participant pool should include administrative staff from a variety of JMU departments and with a wide range of job titles.

Appendix K (continued): Card Sort User Profiles and Participant Criteria

Criteria for Ideal Card Sort Participants

In addition to the criteria listed above, participants in future usability studies should be recruited with the following details in mind:

Age: Future Counseling Center website usability tests should ensure that student participants are diverse in age and faculty participants are diverse in experience level.

Gender and Sexuality: Future website usability testing should consider diversity of gender and sexuality when recruiting participants.

Race and Ethnicity: Diversity of race and ethnicity should be considered when recruiting participants for future Counseling Center website usability testing.

Appendix L: Card Sort Test Script

Hello _____ ,

Thank you so much for taking the time to help me with this project! I'll be reading from this script as I go over what we'll be doing, to make sure I give the same information to each participant and don't forget anything.

Before I continue, I just want to let you know that no audio or video recordings will be happening during our session today. I will, however, be taking notes on what occurs (such as your comments or questions throughout the process). My goal with this study is to find out how to improve the Counseling Center's website, so please don't worry about making mistakes. I'm only interested in finding out what organization makes the most sense to you, so I won't be evaluating your website organization skills.

Do you have any questions so far? **[If no, move on/If yes, answer the question(s).]**

Today you'll be working on a card sort of the JMU Counseling Center's website. In front of you, there's a collection of cards, each with a link found on the website. I'd like you to pretend that you're in charge of designing the website, and ask yourself: "how should I organize these links in a way that makes the most sense?" As you begin sorting them, you might notice patterns in their organization naturally appear. You may realize that some cards should fall in certain categories. I'll provide you with a blank card if you think there should be a category that isn't on an existing card already.

There might seem like a lot of cards at first, but I'd like to stress that there's no right or wrong way of organizing them! Just lay them out in a way that makes sense to you. If you discover cards that don't seem to fit in any category, feel free to set them aside and revisit them later.

The card sort should not take you longer than an hour, but you're welcome to take as much time as you want to complete it. As you're working on organizing the cards into categories, I'll be encouraging you to speak your thoughts out loud as much as possible. I'd like you to say whatever is on your mind as you're working, like why you're placing certain cards in certain categories, or cards you expect to find that aren't there. I might prompt you to speak up as we go along by asking you questions such as: "what are you thinking," "why is that card in that category," or "why are these grouped together?" When you've finished sorting all the cards, I'll end the session with a few questions about your organization process and impressions of the site.

Appendix L (continued): Card Sort Test Script

If you have any questions throughout the session, please don't hesitate to ask! I might not be able to answer right away, because I am interested to see how you would organize all the cards if I

were not in the room with you. If I can't answer any of your questions immediately, I will write them down, and we can go over them once you've finished sorting. Finally, if you need a break at any time, please don't hesitate to let me know.

Do you have any questions? **[If no, move on/If yes, answer them.]**

Great, thanks again for taking the time to help me here today! Let's get started.

Appendix M: Card Sort Session Notes Template

General Session Notes:

Post-session Questionnaire:
1. Can you tell me a little about how you decided to organize the cards? (Why did you put certain cards in certain groups?)

2. Looking at all the categories you've created, can you think of an umbrella term that could work as a title for each of them? Is there a card already in the category that might work as a title/umbrella term?

3. Now that you're so familiar with the Counseling Center website's content, who would you say is the site's primary audience? Why?

4. What do you think is the site's goal? Why?

Appendix N: Post-Card Sort Questionnaire

1. Can you tell me a little about how you decided to organize the cards? (Why did you put certain cards in certain groups?)

2. Were there any cards that were especially difficult to sort, or were there cards that seemed to fit multiple categories?

3. Looking at all the categories you've created, can you think of an umbrella term that could work as a title for each of them? Is there a card already in the category that might work as a title/umbrella term?

4. Now that you're so familiar with the Counseling Center website's content, who would you say is the site's primary audience? Why?

5. What do you think is the site's goal? Why?

Appendix O: Card Sort Test Links List

Main Navigation Bar

Counseling Center

Emergency Assistance

Your First Visit

Services for Students

Self-Help Resources by Topic

Audience-Specific Resources

General Counseling Resources

Training Opportunities

About the Counseling Center

Counseling Center FAQs

Contact Us

Emergency Assistance Page

additional 24 hour services listed below

warning signs

walk-in hours

Dean of Students

"How to Help a Distressed Student"

Your First Visit Page

Student Success Center

emergency mental health situations

emergency assistance

Who We See and Why

Parking

Services for Students Dropdown Menu

Individual Counseling

Group Counseling

Treatment Programs

Sexual Trauma Empowerment Program (STEP)

Self-care Spaces

Consultation Services

Psychiatric Services

Outreach Services

Peer Mentor Program

Wilderness Therapy

Workshops

Self-help Resources by Topic Dropdown Menu

All Topics

Academic Concerns

ADHD

Adjusting to Changes

Anxiety

Depression

Eating Issues

Grief

Relationships

Self-Assessment

Social Anxiety

Substance Use

Taking Care of Yourself

Trauma

Audience-Specific Resources Dropdown Menu

Overview

For Faculty and Staff

For Parents and Families

For LGBTQIQA Students

For International Students

For Military Connected Students

General Counseling Resources Dropdown Menu

Overview

Community Counseling Resources

Medication Resources

Helping a Student in Distress

How to Refer a Student to Counseling

Reducing the Risk of Suicide

Supporting a Sexual Assault Survivor

Training Opportunities Dropdown Menu

Doctoral Internship

Residency

Counseling Externship

Ed.S. Practicum

Psy.D. Practicum

CSPA Assistantship

About the Counseling Center Dropdown Menu

Overview

Who We See and Why

Confidentiality

Counseling Center Staff

Student Feedback

Driving Directions

Sitemap

Counseling Center FAQs Page

What is counseling?

What is individual counseling?

What is group counseling?

I'm scared/anxious/nervous about seeing a clinician… is that normal?

What if I'm from a different culture/background/orientation/ gender than my clinician?

Does getting counseling mean I'm "crazy" or "weak"?

Does getting referred off-campus mean I'm too "crazy" to be seen at the Counseling Center?

Isn't it better to solve my problems on my own?

What if I'm out-of-town, abroad, or on break? Can I still receive

counseling at the CC?

What if I'm uncomfortable with my clinician? Or just not a good match?

Who is seen at the Counseling Center?

Are there costs for any of the clinical services?

Will my parents or anyone else
know that I came to the
Counseling Center?

Where should I park?

Can I get a letter for my professor?

Can I be seen today?

What can I expect during my first visit?

Do you have session limits?

Can I make an appointment for
my friend or my child?

If the university is closed for snow,

is my appointment cancelled?

Can I get a refill of my medication?

Do you prescribe ADHD medication?

**Do you do any testing for ADHD
or learning disabilities?**

Can I see the therapy dogs?

Can I use the Oasis/Studio?

Contact Us Page

Emergency Assistance page

Outreach Request Form

Local Clinician Database

FAQ page