University of Colorado at Colorado Springs

Usability Testing Report

UCCS Undergraduate Psychology Webpage

TCID 3860

Jennifer Scott

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Prepared for: Olivia McDonald

Email: omcdonal@uccs.edu

By: Emily Leusink, Irving Reyes, Monica Dinh & Donah Schroeder

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Executive Summary

This report is an evaluation of the usability of the Undergraduate Psychology Program Webpage of the University of Colorado in Colorado Springs (UCCS). Ms. Olivia McDonald, the UX/UI Lead Architect at UCCS conducted a study to identify key performance areas and provide accessibility recommendations for improvement.

The evaluation utilized a comprehensive methodology, which included a six-task usability test with screen and audio recordings, user personas, surveys, single-ease questions, and other user experience research methods. The primary target audience for the test was high school juniors or seniors interested in pursuing a bachelor's degree in psychology.

The usability test revealed several critical issues related to the website's functionality, all of which we recommend the solutions listed below:

1. Finding 1: Users had trouble navigating sections to find information.

   Our recommendation is to implement more data visualization elements, include short section descriptions, and add an FAQ section for users.

2. Finding 2: Users disliked being taken to other webpages for more information.

   Our recommendation is to organize more information to fit on a singular webpage and incorporate more interactive features to keep users engaged within said webpage.

3. Finding 3: Users found sifting through content to find information overwhelming

   Our recommendation is to implement a clear information hierarchy, adding search and filtering enhancements as needed.

4. Finding 4: Users did not find the website visually appealing.

   Our recommendation is to modernize existing design elements and optimize imagery to improve visual cohesiveness and user engagement.

Despite these key difficulties, the usability test demonstrated enrollment process successes, with Task 5, "Begin Applying to the Undergraduate Psychology Program," achieving 100% completion with favorable user commentary.

In conclusion, the report provides actionable recommendations to enhance the UCCS Undergraduate Psychology Program (UPP) Webpage's accessibility and user experience. Addressing these findings is crucial for improving navigation, reducing user frustration, and creating a visually appealing website that attracts and retains prospective students.

Introduction

Purpose

Our group was asked to conduct user research on the Undergraduate Psychology Program from the perspective of a prospective student. Due to our group's lack of familiarity with this webpage and the UCCS website, we decided to set up a virtual interview with UCCS's UI/UX Lead Architect, Ms. Olivia McDonald. We felt her background and profession best suited her as the spokesperson for the university's expectations and areas of concern surrounding the psychology program's webpage. We asked for clarification on the webpages we were testing, her knowledge about the audience most impacted by the webpage itself, and what data she hoped to gather.

From this interview, we learned that UCCS hoped to make the Undergraduate Psychology Program more accessible and appealing to prospective student users. This prospective student was either close to or finished with high school, young, and starting their college search. McDonald was interested in how the data was being presented and whether or not a person in high school (or recently graduated from high school) could learn the program's foundations by skimming the page. She recommended we focus our attention on key areas most relevant to prospective students, such as the program requirements and the application process.

After the interview, we began our research by exploring other psychology program webpages, like UCCS' sister schools' sites, and even experimented with the UCCS website ourselves by following the application procedure McDonald had outlined for us. As our research progressed, we took note of the critical tasks that delivered the most valuable information to our users. With our red routes outlined, we created a user persona profile to quickly reference and represent the needs and goals of the prospective student McDonald described. Our user persona profile held the same values and wants of a young, fresh-out-of-high-school prospect while being unaware of most things relating to "college life". We named our user persona "Alice" and used her as a frame of reference when deciding how to best approach/test the Undergraduate Psychology Program.

We decided on a five-task usability test involving a proctor, a recruited participant, and an annotator, with each task's completion rate and time recorded. Due to time constraints, we decided to have our participants sign a consent form, allowing us to record the full walk-through of our test. This also minimized the risks of not having an annotator available for the date and time of the said test. All participants were recruited through email, where we gave brief but minimal information about the nature of the test and asked them to sign our Recording Consent Form (see Appendix A). Overall, we focused on assessing high school juniors or seniors (16-18 years old) with some interest in studying psychology, similar to our user persona profile. The data gathered from the surveys further served to identify some issues regarding the website's functionality. To better showcase the feedback we received from our participants, we created a user journey map that correlates our user persona profile with our participants' situation, giving us insight into how "Alice" (and other prospective students) would interact with the website.

Understanding the User

As part of the university website, the undergraduate psychology webpage had a specific audience group related to entry-level higher education. This website's users would have a different perspective than someone using a different program's undergraduate webpage. Knowing the user group's demographics, thought processes, and goals pertaining to the website changes which parts of the website and its issues are the most important, thus changing what parts to focus on and test.

User Research

To better understand the website, its goals, and its audience, we interviewed Ms. Olivia McDonald, the UX/UI Lead Architect for UCCS. This interview outlined the main concerns for the website and what areas to focus testing. Using additional research as well, we identified the user group to test.

Client Interview

In the client interview, one of the main concerns discussed was whether users could find and use the key performance areas (i.e. the Apply Now button) with confidence and ease. Since consistency across programs was one of the goals for the website, McDonald requested we also record the website's success at presenting information and types of information consistently.

In this interview, we were provided with a range of target demographics to help identify the background of prospective students and their respective struggles with the website. For instance, UCCS has four primary user groups:

- Traditional - recent or soon-to-be-graduated high school students
- Non-traditional - 26 years or older
- Military - currently active duty
- Family - parents or family members of traditional students

Considering these groups, we felt the most insight would come from testing the user group with the least amount of college experience - traditional students. Although they are likely the most tech-savvy, they are also often unfamiliar with college-specific terminology (i.e. course search, academic catalog), the educational requirements (i.e. core courses, credit hours required), or the differences between educational levels (i.e. undergraduate vs graduate, masters vs PhD).

Additional Research

One of the main stressors for traditional students is the financial burden of higher education (see Appendix D). This combined with the stress of a new environment for out-of-state students often causes stress on the students' mental health. For these reasons, we included the need for financial assistance and mental health resources. Furthermore, the persona is interested in keeping a flexible class schedule so she can work while

attending school, whether that be to help pay for her education or to gain experience in her field.

Creating a Persona

Understanding one of the main user groups for this website provided a foundation for how to test the Undergraduate Psychology Program website. As mentioned earlier, recruiting traditional prospective students would significantly differ from testing other audience groups, especially non-traditional students and students' families. This is due to their pre-existing familiarity with college-specific terminology, educational requirements, and educational levels. Knowing this information helped ensure the tasks participants were asked to complete were ones that this user group would have to complete, as well as kept the tasks in language that the users would think in and understand. This also guided the recruitment process because the participants would approach the tasks in the same manner, revealing the roadblocks that this user group would likely encounter.

Based on the client interview and additional research, we created the persona on the following page (Figure 1), also listed in Appendix B. She represents a traditional prospective student to maximize the results of the user testing.

Figure 1

Because our persona was a traditional prospective student, she was 18 years old and about to graduate high school. As a primary user of the UCCS Undergraduate Psychology webpage, our persona's goals include working in psychology, further reflected in her need to earn a license and her interest in health and wellness programs.

Recruiting Participants:

The individual tests took place at different times with different proctors; however, all of our participants shared common goals and characteristics similar to the ones described in our persona. Each participant was 16-19 years old to match how the persona was a high school student about to graduate. Similarly, the participants had some level of tech-savvy as the persona did. Finally, both the participants and the persona had little experience with university websites, including UCCS' website. Because of this, they could give the perspective of a user who has not learned how to use the website yet. Below is a list of our volunteer usability test-takers, color-coded to make the testing results easier to read.

Participant 1:

- **Age:** 17
- **Date of Test:** 11/15/23
- **Occupation:** High School Junior
- **Moderator:** Monica

Participant 2:

- **Age:** 17
- **Date of Test:** 11/20/23
- **Occupation:** High School Senior
- **Moderator:** Emily

Participant 3:

- **Age:** 18
- **Date of Test:** 11/26/23
- **Occupation:** High School Senior
- **Moderator**: Monica

Participant 4:

- **Age:** 16
- **Date of Test:** 11/22/23
- **Occupation:** High School Junior
- **Moderator:** Donah

Participant 5:

- **Age:** 17
- **Date of Test:** 11/25/23
- **Occupation:** High School Senior
- **Moderator:** Irving

Methodology

After meeting with McDonald to determine which user group to test, we used the user group specifics as well as the persona to recruit participants. This information, in addition to the concerns and goals highlighted in the interview, also helped to determine what parts of the website would be used the most frequently and by the most people. After outlining the important details of testing in the Usability Dashboard (see Appendix P), we drafted a script for usability testing and consulted with our instructor to ensure the tests would provide insightful data and fit with the real-world scenarios users experience.

Client Needs and Website Function:

In the client interview, the key areas to build the test around were whether users could find and easily use the key performance areas as well as how successful the website was at presenting information and types of information consistently.

There are four key performance indicators (KPI) that provide a call to action for users on the UCCS Undergraduate Psychology homepage: Apply Now, Tour Campus, Request Info, and Contact Us. Of those four only one, Apply Now, was of high importance according to our red route matrix (listed below). Because every prospective student who would attend UCCS would interact with that KPI at least once, it was added to the testing script's task list.

In addition to KPI, there are links to further information that do not provide a call to action. For example, the link "Required Credit Hours: 120" leads to a PDF of the required course list. There are also several links to financial and course information, such as "Cost of Tuition Estimator" and "Psychology Current Course Search." However, none of these are actionable beyond finding general information.

As both financial and course information lead to separate parts of the UCCS website, they provided a comparison for the undergraduate psychology homepage in order to judge the consistency of the information and how it was presented.

Usability Testing:

To match how traditional prospective students would interact with the UCCS Undergraduate Psychology webpage, we assessed the most important parts of the webpage and how they matched the client's needs. Using the persona to maintain wording that matched users' thought processes, we created tasks for the participants to complete that tested these parts of the website and the related needs. Additionally, participants were routinely asked for their perspective on task difficulty, KPI function, and the website's overall design. All of these parts informed how the tests were conducted.

Red Routes:

Using the information gained from our client interview and user persona, our group analyzed the red routes to find the most important and most used parts of the website, represented in Figure 2 (see Appendix D). The information was organized from the least frequently used at the bottom to the most frequently used at the top, as well as organized by which function the least amount of people used on the left to the routes and the most amount of people used on the right.

Prospective Student

ALL OF THE TIME	Opportunities for in-person / hybrid learning	Scholarships and Financial Aid	Years of Completion	Curriculum Requirements (Credit Hours)
MOST OF THE TIME	Research Opportunities	How to Transfer Credit Units over	Locate Program Cost	Enrollment Requirements
SOME OF THE TIME	Resources for Licensure	Consult with an Advisor	Career Opportunities	Overview of the Program
VERY LITTLE OF THE TIME	Community and Involvement	Visit Campus	Dual-Major / Minor Programs	Application Process
	FEW OF THE PEOPLE	**SOME OF THE PEOPLE**	**MOST OF THE PEOPLE**	**ALL OF THE PEOPLE**

Figure 2

Four red routes were used to inform our usability testing.

1. Curriculum requirements - how many credit hours are required
2. Program cost - what is the difference between part-time vs full-time costs
3. Application process - what part of the general application is psychology-specific
4. Delivery method options - is the program offered online, in-person, or hybrid

Scenarios and Tasks:

These red routes formed the basis for the tasks used during testing in order to reflect how users would most likely use the website. Additionally, we recorded the users' ability to find the UCCS Undergraduate Psychology webpage in a general search for SEO purposes. This came from the client's interest in knowing where the UCCS webpage came up, and thus how likely traditional prospective students would be to find it if they were not looking for it. Overall the tasks were completed to simulate the order a user would complete them in - from discovery of the program to application. These factors shaped the usability test's scenarios and tasks listed below.

1. Imagine you just graduated high school with a passion for psychology. You are looking for information about undergraduate psychology programs in Colorado. Please search for psychology programs in Colorado.
2. You think the program looks interesting, so you decide to look into what classes you would take. Find the list of specific courses needed to complete the undergraduate psychology program (Red Route #1).
3. You think the undergraduate program is awesome, but you can only go part-time since you'll be working full-time. You want to know how much it's going to cost. Find the cost of the psychology program for a 9-credit-hour semester (Red Route #2).
4. Because you're working full-time, you want to take mostly online classes so it's easier to manage with your busy schedule. Find out if you can take your undergraduate psychology courses online (Red Route #4).
5. You think the costs and schedule match closely enough with what you need. You have decided that you want to enroll in the program. Begin applying to the undergraduate psychology program (Red Route #3).

At the end of each task, the participants were asked to rank how difficult the task was to complete, known as an SEQ survey. As seen in Figure 3, the difficulty is ranked on a scale from 1 to 7, with 1 being very easy to complete and 7 being very difficult to complete.

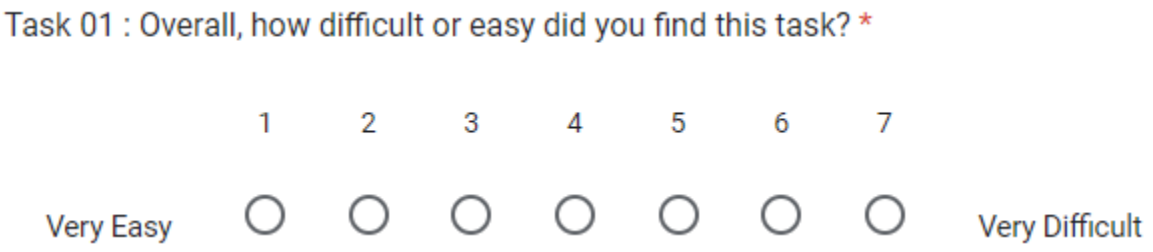


Figure 3

Homepage Tour:

Between Task 1 and Task 2, the participants were given one minute to look at the UCCS Undergraduate Psychology Program homepage. Afterward, they were asked the following questions to understand their initial impressions of the website.

- What is the first thing you notice?
- Is there anything you like or dislike?
- What do you expect to learn on this website?

Post-Interview and SUS Questions:

At the end of the testing session, each participant was asked the following questions to gauge their qualitative experience navigating the website.

- Do you feel there was enough information on the website to get excited about the program?
- How well would you say you were able to navigate the website?
- Did you find any aspects of the website confusing or challenging?
- Was the information you needed to find where you expected them to be?
- Were there any major problems you noticed in how well you could use the website?

They also filled out a System Usability Scale (SUS) survey which asked them to rate how strongly they disagreed or agreed with the following statements.

- I think that I would like to use this system frequently
- I found the system unnecessarily complex
- I thought the system was easy to use
- I think that I would need the support of a technical person to be able to use this system
- I found the various functions in this system were well integrated
- I thought there was too much inconsistency in this system
- I would image that most people would learn to use this system very quickly
- I found the system very cumbersome to use
- I felt very confident using the system
- I needed to learn a lot of things before I could get going with this system

Ensuring User Connection

To ensure that the questions and tasks utilized in the usability tests were relevant and provided useful feedback, they were written specifically to reflect the persona and how that user would think about the website. For instance, the persona is a high school student interested in psychology. This user has limited experience with both the details of the field of psychology and higher education, thus they are not likely to think in or have a reference for specific terminology. One example is in Task 2 where the participants were asked to find a section labeled “Major Requirements;” however, the task asked them to find a list of specific courses needed to complete the program. This also helped to mitigate suggesting “correct” solutions to the participants, letting them instead work out solutions on their own.

Some tasks required the use of college-specific terminology to ensure the task was specific enough to be completed. For example, Task 3 asked for the cost of a 9-credit-hour semester so the participants would be less likely to find full-time costs in addition to part-time costs. The reason for this was because the persona emphasized the financial costs of the program, specifically as she represented users who would be working while attending university. Task 4 also reflected this concern by asking if classes could be taken online, as this would provide greater schedule flexibility for such students.

Testing Logistics

To gain the best results, the tests were conducted in quiet, secluded areas to minimize distractions. This was done for in-person and online tests (conducted over Zoom) over two weeks from November 12 - 26. All tests included the use of laptops with internet access; meeting software to record laptop screens and participant expressions for note-taking purposes (Teams, Zoom); a testing script to maintain consistency (see Appendix Q); a permission form to record (see Appendix A); and a notebook to record observations and assumptions. Every team member proctored at least once, recording their respective tests and transcribing their notes into a cumulative research spreadsheet.

The tests began with the proctor bringing the participant to the testing room if conducted in person. Otherwise, the proctor introduced themselves, and if applicable their note-taker, to the participant. After explaining the testing process and what to expect, written and verbal permission was obtained for recording. The proctor then walked the participant through the process of thinking aloud by asking the participant to walk the proctor through how many windows their house had. Next, the proctor interviewed the participant to gain a better understanding of their experience online and with university websites. The proctor then gave the participant each task and scenario one at a time for them to complete on the computer set up beforehand. After the tasks were completed the proctor conducted another interview to assess the participant’s impression of the website and how well they were able to complete the tasks. The participant was asked to complete a System Usability Scale (SUS) survey to gain more insight into the participant’s opinion of the website’s usability. If the participant had no further questions, the proctor thanked the participant for their assistance and feedback. Overall, the tests took an average of 45 minutes, with 30 minutes dedicated to the scenarios and tasks.

Findings

Four notable issues emerged during our comprehensive usability testing of the UCCS psychology website. These findings portray both challenges and opportunities, providing valuable insights for refining and optimizing the website to better meet user needs.

These four findings are as follows:

- Finding 1: Users had trouble navigating sections to find information
- Finding 2: Users disliked being taken to other webpages for more information
- Finding 3: Users found sifting through content to find information overwhelming
- Finding 4: Users did not find the website visually appealing

Before analyzing these issues, we will provide an overview of the quantitative testing results for all five tasks. Listed are the completion times of each participant, their Single Ease Question (SEQ) rankings, and success rates.

Task 1: Searching for Psychology Programs in Colorado

For Task 1, participants displayed a success rate of 100%, successfully locating an undergraduate psychology program in Colorado. All participants utilized Google to search and averaged a completion time of 1 minute and 22 seconds. Participants rated their satisfaction using the SEQ scale, averaging 2 on a 1 to 7 difficulty scale.

Additionally, when asked if they could find the UCCS undergraduate psychology page during their search, 80% of participants were unable to locate the website while Participant 1 found it as the 19th search result after scrolling. Below are the results of each participant's data collected from Task 1 in Figure 4 (see Appendix K).

TASK 1			
Particiapnts	SUCCESS?	COMPLETION TIME	SEQ RANKING
P1	☑	0:58:15	3
P2	☑	0:47:00	2
P3	☑	1:07:00	2
P4	☑	0:52:00	2
P5	☑	3:10:00	1
MEAN	100%	1:22:51	2

Figure 4

Task 2: Locating Major Requirements

Task 2 involved participants locating the major requirements for the UCCS undergraduate psychology program. As shown in Figure 5, this task revealed a 40% success rate and an average completion time of 3 minutes and 15 seconds (see Appendix L). The SEQ rankings averaged 3.8, indicating moderate user satisfaction.

TASK 2			
Particiapnts	SUCCESS	COMPLETION TIME	SEQ RANKING
P1	☑	3:04:34	6
P2	☐	2:24:00	4
P3	☐	2:54:00	5
P4	☐	1:27:00	3
P5	☑	6:30:00	1
MEAN	40%	3:15:55	3.8

Figure 5

Task 3: Finding the Cost of Attendance

When participants were asked to locate the cost of attendance, they demonstrated an 80% success rate, as listed below in Figure 6 (see Appendix M). The average completion time was calculated at 4 minutes and 56 seconds, and the mean SEQ ranking was a 4.7.

TASK 3			
Particiapnts	SUCCESS	COMPLETION TIME	SEQ RANKING
P1	☑	7:23:54	7
P2	☐	2:57:00	5.5
P3	☑	3:36:00	5
P4	☑	2:08:00	2
P5	☑	8:40:00	4
MEAN	80%	4:56:59	4.7

Figure 6

Task 4: Determining Online Options

Task 4 presented challenges, with a 40% success rate in determining if the program had an online option. Participants took an average of 4 minutes and 41 seconds to complete this task. The SEQ ranking was 5.8, averaging higher than the others. The figure below indicates the participant data.

TASK 4			
Particiapnts	SUCCESS	COMPLETION TIME	SEQ RANKING
P1	☑	5:56:30	6
P2	☐	4:23:00	7
P3	☑	0:46:57	4
P4	☐	1:23:00	7
P5	☐	10:57:00	5
MEAN	40%	4:41:17	5.8

Figure 7

Task 5: Enrolling in the Program

Task 5 results were outstanding, with a 100% success rate in the enrollment process. Participants completed the task with a mean time of 5 minutes and 58 seconds. The SEQ ranking was 2.8, indicating an efficient enrollment experience.

TASK 5			
Participants	SUCCESS	COMPLETION TIME	SEQ RANKING
P1	☑	2:46:53	4
P2	☑	4:45:00	3
P3	☑	2:06:00	4
P4	☑	0.29.00	1
P5	☑	13:02:00	2
MEAN	100%	5:58:18	2.8

Figure 8

Analysis and Recommendations

In this section, we shift toward an examination of our usability testing results and our four established findings. Additionally, we employed a ranking system that categorizes the findings as critical, serious, and minor.

The hierarchical categorization of these findings serves a crucial purpose in prioritizing actions. By distinguishing the issues as critical, serious, and minor, we provide a roadmap for approaching the four issues intently.

Critical findings represent issues that demand immediate attention and remediation. Users encountering navigation challenges (Finding 1) and expressing dissatisfaction with being directed to external websites (Finding 2) show significant impediments to the user experience.

While not reaching the level of importance as critical findings, the users' feeling of overwhelmingness when finding content (Finding 3) is classified as serious. This reflects the need to improve user engagement and satisfaction over time.

Lastly, the lack of visual appeal (Finding 4) is classified as minor, noting that it is not as relevant as Findings 1-3, however, presents the opportunity for website optimization. Minor findings, though less urgent, should not be overlooked as they still derive from user impressions and can contribute to the long-term success of the website.

In the following sections, we will delve into each finding, offer a detailed analysis of the qualitative and quantitative data according to the tasks and scenarios presented, and dissect our recommendations aimed at addressing these issues.

Success and Satisfaction Indicators:

The results of the usability test identified that the website successfully streamlines the enrollment process while also maintaining an easy and simplistic functionality. This can be perceived by the overwhelmingly positive responsiveness to Task 5, which asked users to apply to the UCCS Undergraduate Psychology program.

In this final task, after users had explored the UCCS psychology website, participants were requested to enroll in the program. To complete this, the user had to access the UCCS application portal for first-year applicants and choose 'Psychology' as their academic interest under the 'Proposed Major' question.

Of our five users, 100% of participants were able to complete this task, fostering the most successful response of the usability test. In addition to these results, Task 5 was recognized as the easiest task involving the psychology website according to the SEQ survey conducted. In a ranking of 1 to 7 with 7 noting the highest difficulty of the task, the average score of users' ease in enrolling in the program was 2.8 or a 40% ease.

Figure 9 below displays the Single Ease Question rankings for Task 5 of all participants.

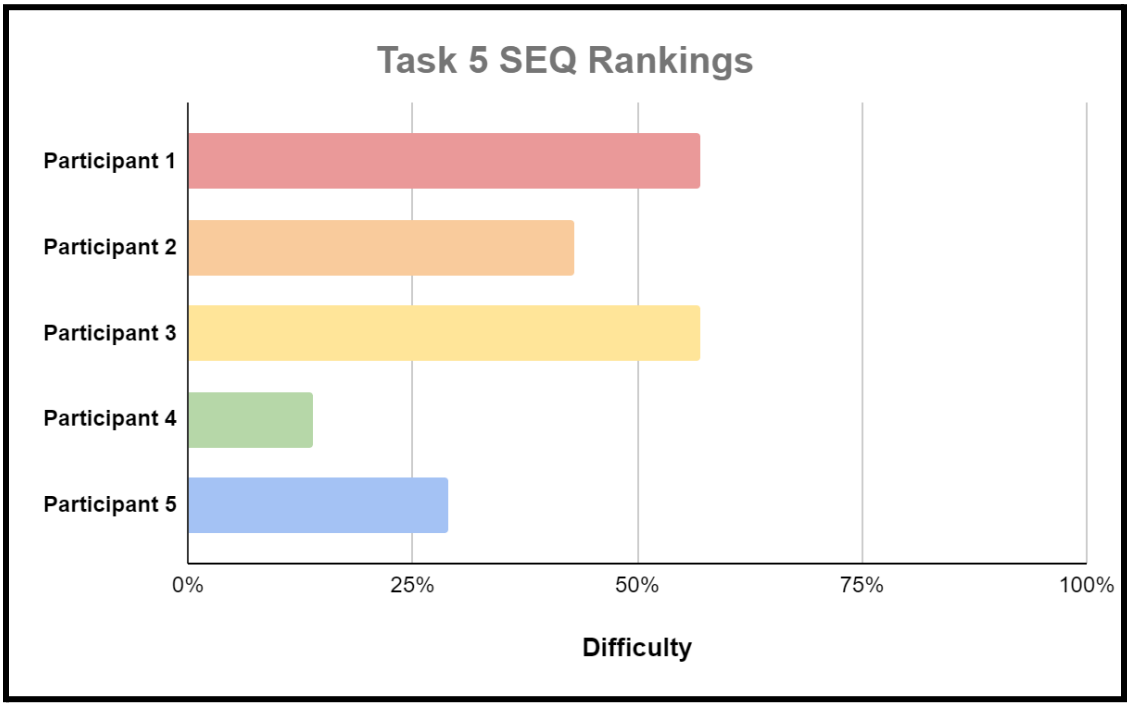


Figure 9

The high success rate, coupled with the low complexity ranking and perceived ease of use, is indicative of the overall usability of UCCS's enrollment process after navigating the undergraduate psychology webpage. This positive response reflects the effectiveness of the website's design and functionality.

Critical Issues:

This section will discuss the critical challenges that users encountered, particularly relating to navigation and information accessibility.

Finding 1: Users had trouble navigating sections to find information

A noteworthy concern observed in users pertains to difficulties navigating sections to find relevant information. In Task 2 and Task 4, a subset of users faced challenges locating specific information within the website's architecture.

In Task 2, we asked users to identify the list of specific courses needed to complete the program. The solution to this task required users to locate the link to the major requirements PDF under the website's 'Program Requirements' section.

Of our five users, only two were able to complete the task resulting in a 40% success rate. The remaining users had either failed to identify the correct information or had given up on locating the information on the website. Participants 2 and 3 had failed to properly locate

the program courses while Participant 4 admitted to not knowing where this information would be found.

This issue raises questions about the clarity and intuitiveness of the navigation structure and prompts a closer examination of areas requiring improvement. Figure 10 below displays the success rates for all five tasks. As shown, Tasks 2 and 4 have the lowest completion rates.

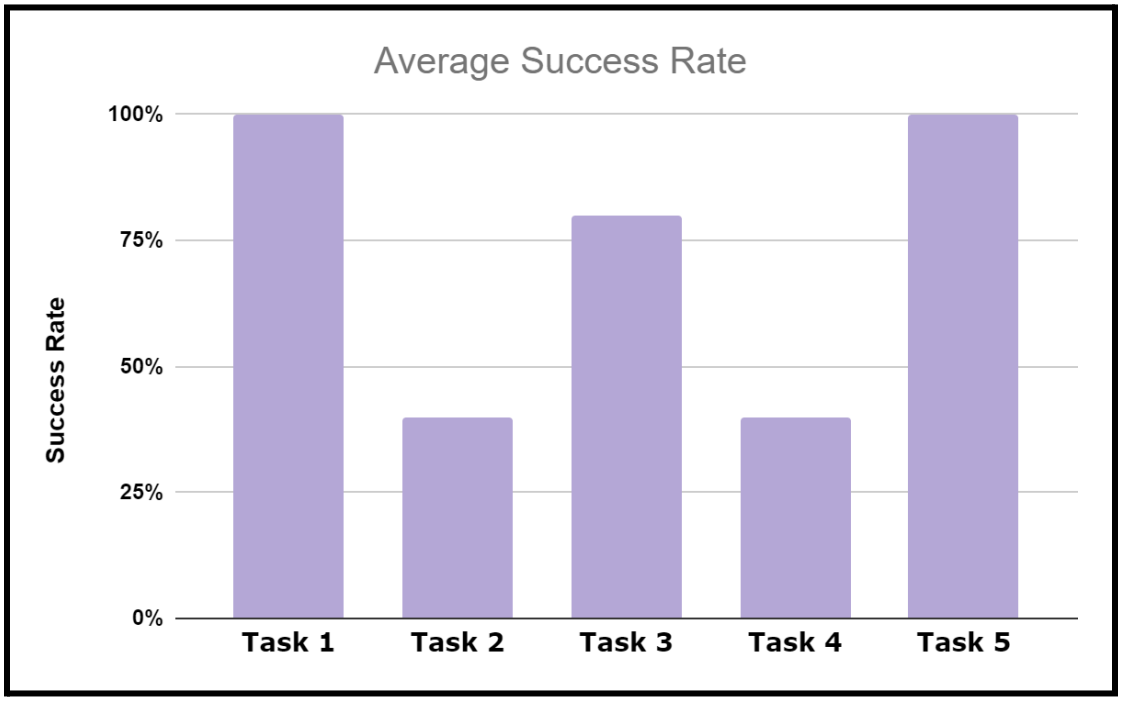


Figure 10

In a focused effort to delve deeper into the user experience, we also created a user journey map that encapsulates the user's impressions of the website during Task 2. In this map, we included the journey stages, goals, emotions, etc. portrayed by the users.

Presented through the perspective of our persona profile, the following visual representations provide a comprehensive overview of the pain points and emotions for each stage during Task 2. Figure 11 below exhibits the five stages of Task 5 in our user journey map. For the full user journey map, see Appendix R.

Figure 11

In Figure 12, pain points display the common issues that arose for each stage during Task 2. These issues were created from our observations of our participants, as well as the information gathered to develop our persona.

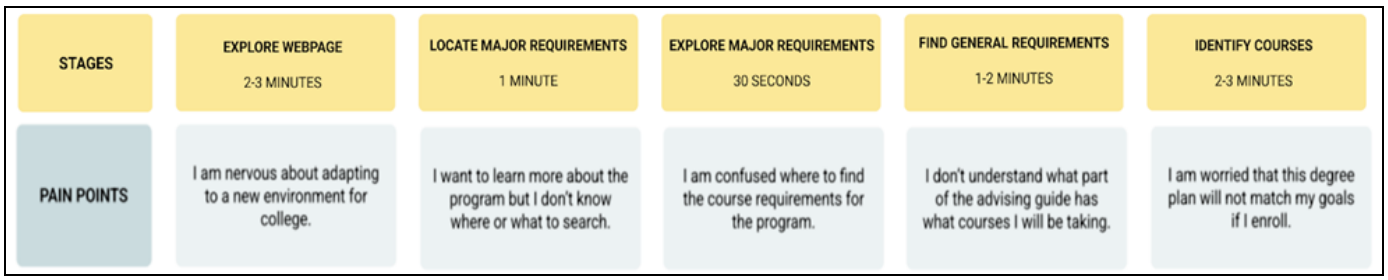


Figure 12

Figure 13 below indicates the emotions users encountered with the website during their task process. As displayed, these emotions fluctuate as the task is conducted. Again, these emotions are derived from the qualitative data from users during testing and research from the persona.

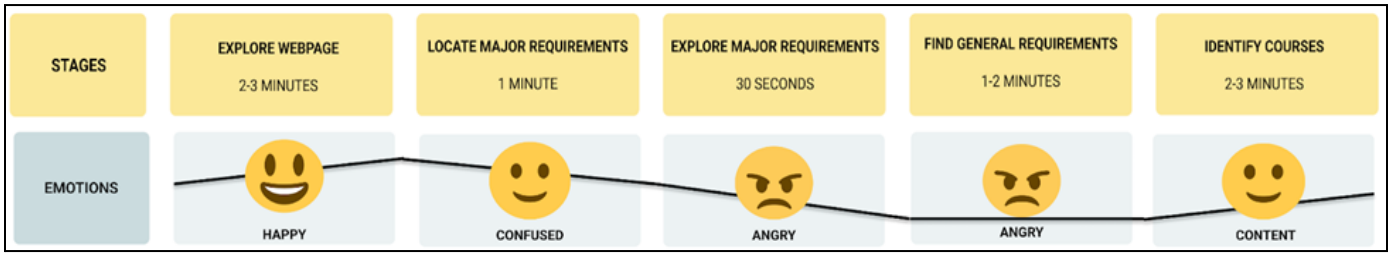


Figure 13

Taking the commentary from our five participants during the usability testing as well as their observed interactions, the testimonials and recommendations of Task 2 can be dissected in the UJM to understand how and why the usability testing identified areas of improvement (see Appendix N).

In Task 4, users were requested to discover if the psychology program can be conducted online. For completion, participants needed to locate the 'Course Delivery' heading at the top of the webpage that states 'On Campus'. Again, of our five users, 40% were able to accomplish this task. Additionally, according to the average SEQ surveyed by users, this task was presented as the most difficult to accomplish resulting in a 5.8 out of 7 ranking.

Participant 2, in particular, who had failed to correctly locate the information, had found themselves on various irrelevant UCCS websites trying to find the answer. Observing their confusion and struggle to understand the content raised the question of the website's navigational efficiency when attempting to discover information about the psychology program.

Figure 13 below indicates the average SEQ score for all five tasks. As displayed, Task 4 has the highest average difficulty rating compared to all tasks.

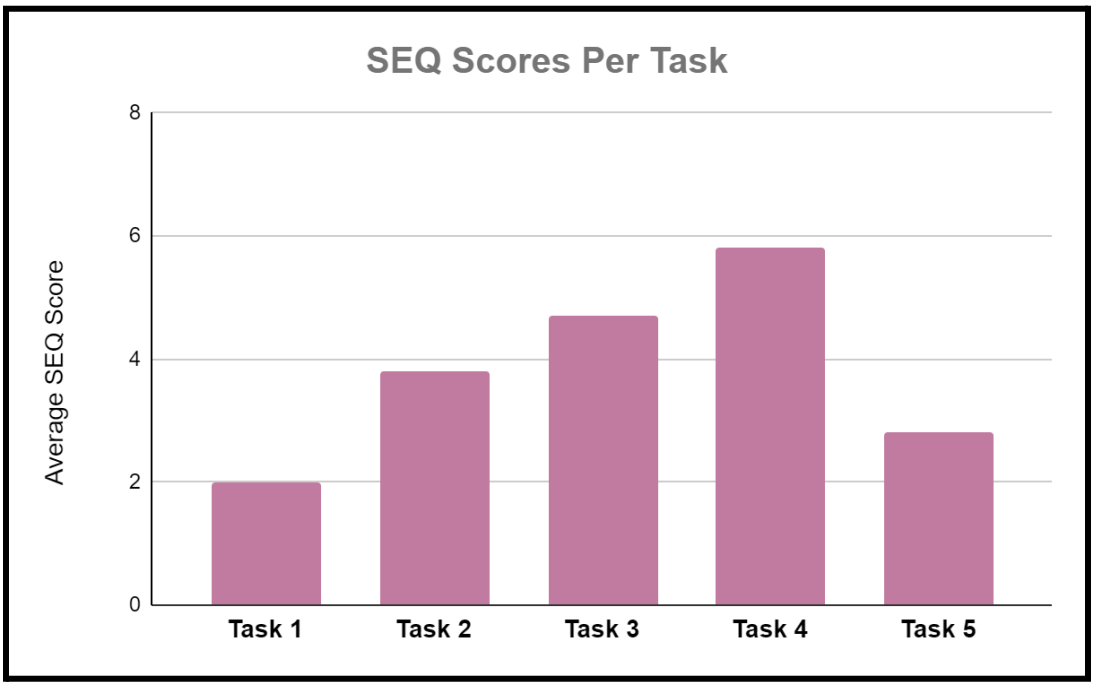


Figure 13

Testimonials from Users

- For Task 2: "Um, okay, I guess I don't know where I would go to see a list of where the courses would be."
- For Task 2: "I think it was decently hard to learn more about the courses offered. If it was laid out on the page instead of through a pdf link, it would be more user-friendly."
- For Task 4: "I don't know where to find that."
- For Task 4: "I don't know if I'm just not seeing it."

Recommendations

Based on these critical findings, we recommend:

- Implementing more data visualization elements:

  Users expressed that content lacked differentiation that would make general information more noticeable. For example, Participant 5 stated, "When I scroll down, there's immediately just blocks of words. There's nothing really eye-catching, it's just words."

- Include short section descriptions:

  Many users who had failed Task 2 and 4 were confused about locating the necessary content. During testing, some users disregarded the correct area for information because they considered the information irrelevant to the task or did not understand the information. Brief descriptions labeling each section of the website would make user journeys much easier to navigate.

- Add an FAQ section:

  When asked about challenges or confusion in the post-test interview, Participants 1 and 4 said that a FAQ section would help make finding information easier.

Finding 2: Users disliked being taken to other webpages for more information

The second critical issue users expressed was discontent with navigating to external websites for information. This detour from the UCCS Undergraduate Psychology Webpage introduced a layer of inconvenience and disrupted the flow of user interaction.

Although this pain point arose in various tasks, this could primarily be seen during Task 3 where users were asked to find the cost of attendance for the program which could be calculated when directed to the UCCS bill estimator website.

This task was the second most time-consuming to complete. Three participants found it overwhelming to use the UCCS bill estimator. Additionally, the SEQ rating noted it as the second most difficult of the five tasks, averaging a 4.7 out of 7 difficulty score.

Figure 14 below displays the SEQ scores of all five participants of Task 3.

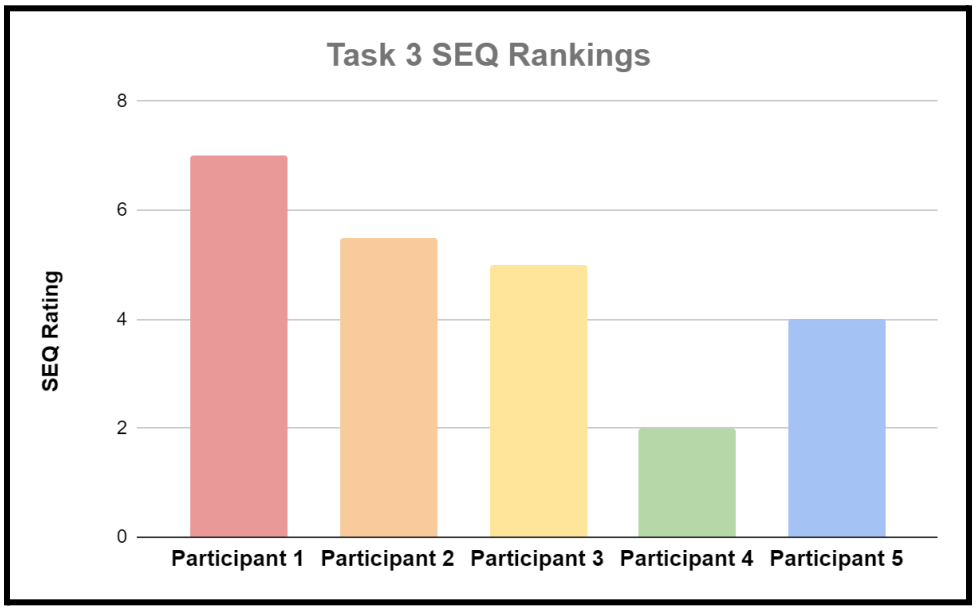


Figure 14

Testimonials from Users

- For Task 3: “A rough estimate displayed on the home screen would be helpful.”
- Post-Test Interview: "I think it was decently hard to learn more about the courses offered. If it was laid out on the page instead of through a pdf link, it would be more user-friendly."

Recommendation

- Organize more information to fit on one page

  Well-integrated and accessible information will enhance the overall user experience by offering a comprehensive, cohesive structure.

- Incorporate more interactive features

  Adding interactive elements such as drop-down menus and search bars will allow more engagement with users and keep them within the webpage. This engagement will help with retention and decrease the fragmentation of their user experience when they are not being redirected to new sites.

Serious Issues:

In this second category, serious issues, we will discuss the pain points users became frustrated with during the usability test.

Finding 3: Users found sifting through content to find information overwhelming

Observed most predominantly during tasks 2, 3, and 4, users remarked a feeling of overwhelmingness when confronted with the volume of information they had to sift through to find relevant details. Participants 1 through 4 often resorted to searching through different UCCS websites or utilizing a browser search bar when the information needed was not on the undergraduate psychology webpage.

In particular, Participant 2 was observed frustratingly returning to the psychology website various times as a starting point after failing to find information on other websites.

Testimonials from Users

- For Task 4 (when asked when they would resort to a different resource for information): "Probably about 5 minutes after looking around, just 'cause I feel like it might be on the website, but if I just search it up and somebody answers then I’ll probably get an answer faster than trying to dig through the website."

Recommendations

- Implement clear information hierarchy

  Clearly and intuitively organizing information will guide users more seamlessly and efficiently through the website and to locate the needed information.

- Add search and filtering enhancements

  Enhancing search functionality will allow users to refine their search based on their needs, thus narrowing information and preventing the overwhelming amounts of information.

Minor Issues

In this last section, minor issues, one concern was brought up by various users.

Finding 4: Users did not find the website visually appealing

During the post-test interview, users consistently highlighted the lack of visual appeal when interacting with the UCCS Undergraduate Psychology webpage. While this issue may be categorized as minor, it suggests that the design elements may not align with contemporary user expectations, thus, playing a critical role in the retention and engagement of user experience.

Testimonials

- Post-Test Interview: "I mean, some more eye-catching imagery would really balance out the paragraphs of text explaining the program."
- Post-Test Interview (when asked if the website excited users about the program): "No, because there needs to be more interaction with the website. Like big visuals or moving parts that would make me want to click on things."

Recommendation

- Modernize design elements

  Updating the website's design approach to be more user-centric will improve visual cohesiveness and user engagement.

- Optimize imagery

  Incorporating more relevant imagery that is reflective of the psychology department's mission will market the university more to prospective individuals. Balancing the use of imagery and content will reinforce its appearance as credible and competitive among other university webpages.

Conclusion

The usability testing on the UCCS Undergraduate Psychology webpage yielded valuable insights into user experiences and preferences. The research focused on understanding user interactions, identifying pain points, and collecting feedback for potential improvements. The success of Task 5, involving program applications, highlighted the website's efficiency and user-friendliness, forming a solid foundation for achieving its primary goal. However, critical issues, particularly related to navigation challenges, surfaced during the test. Users encountered difficulties finding specific information in Task 2 and Task 4, emphasizing the need for clearer navigation paths and intuitive content organization. Dissatisfaction with external links in Task 3 disrupted the user experience, as revealed by survey data.

Feedback from participants underscored the importance of seamlessly integrating information within the website to enhance user satisfaction. Serious challenges emerged, such as users feeling overwhelmed during Tasks 2, 3, and 4, prompting recommendations for a clear information hierarchy and improved search functionality. Minor issues, like the perceived lack of visual appeal, were also noted, highlighting the significance of modernizing design elements for enhanced user engagement.

Overall, the user-centric approach of the research survey identifies areas for improvement and provides a qualitative understanding of user sentiment. By implementing the recommended enhancements, users exploring the UCCS Undergraduate Psychology webpage will have a more positive and engaging experience.

Appendix

Appendix A: Consent and Recording Release Form

Consent and Recording Release Form - Adult

I agree to participate in the Usability Study of the UCCS Undergraduate Psychology website conducted and recorded by the students of Jennifer Scott's ENGL.3860: UX Research Methods course, fall 2020.

I understand and consent to the use of any information I provide and/or video/audio recordings made of my participation in this study.

I understand that the information and recordings are for research purposes, and that both may be used in the presentation of this study's results and for the purpose of improving the website used in the study.

I understand that the researchers performing this study will protect my anonymity, but personally identifiable information, such as my image or voice, may appear in the presentation of the results of this study.

I understand that participation in this usability study is voluntary, and I agree to immediately raise any concerns or issues of discomfort during the session with the study administrator.

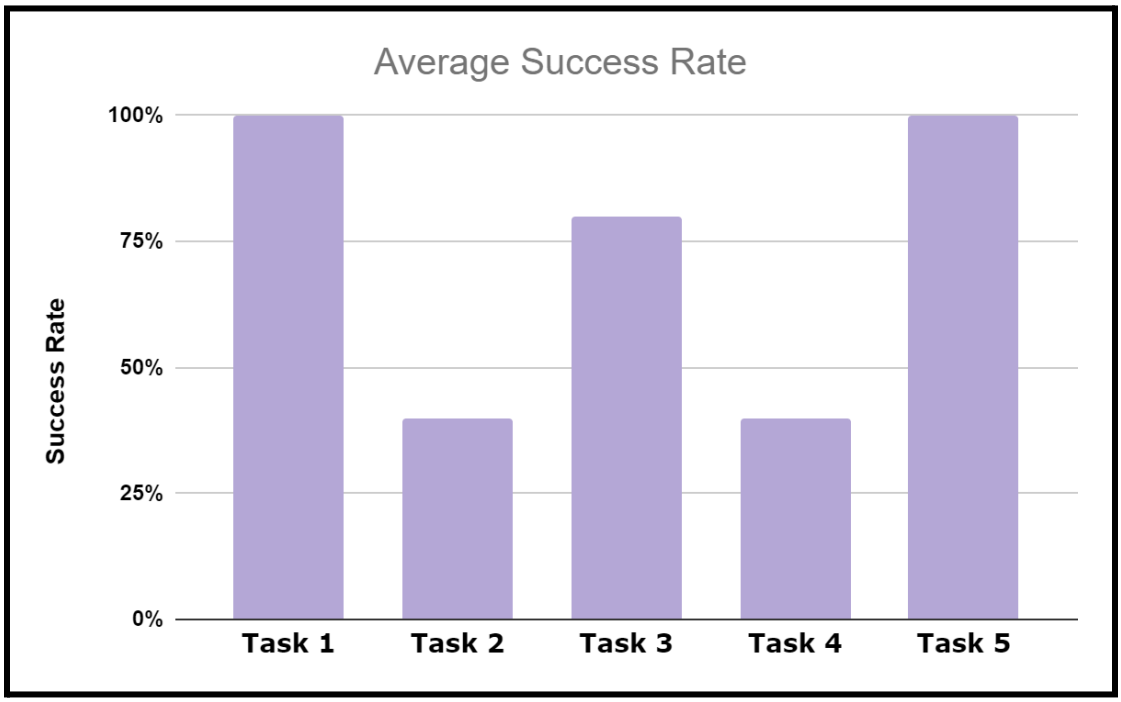
My signature below indicates that I have read this form and fully understand the purpose of this study and my role in it.

Date: _____

Please print your name: _____

Please sign your name: _____

Appendix B: Average Success Rate Per Task



Appendix C: Persona

Appendix D: Persona Research Resource

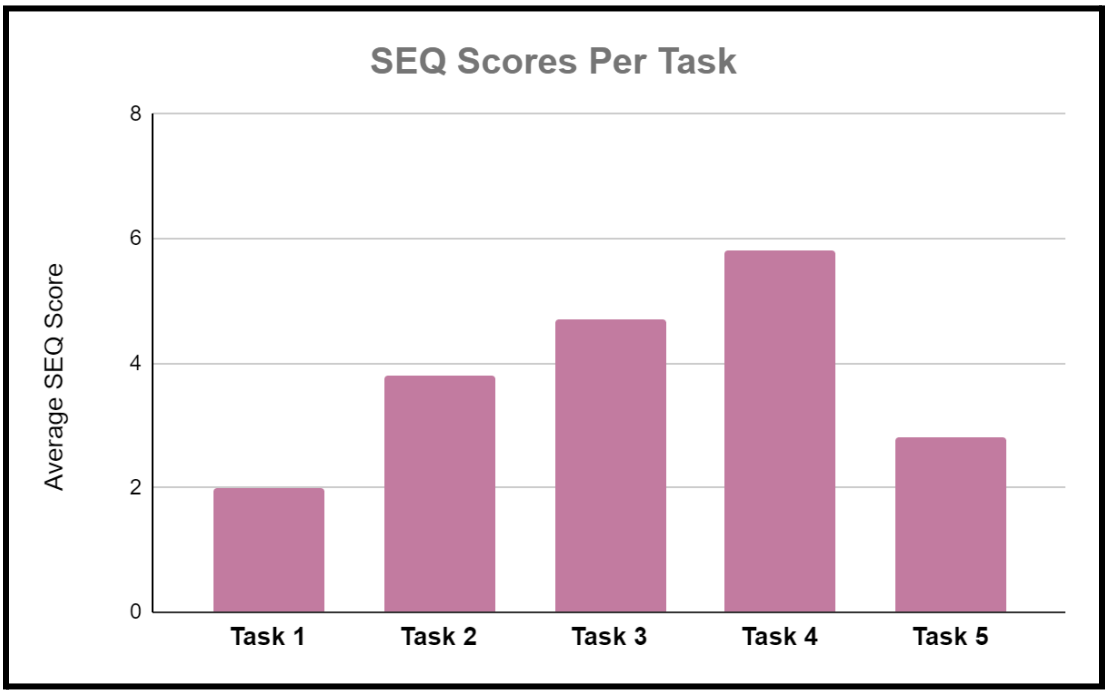
Hackett, B. (2015, September 7). *Survey Shows Most Students Carry Stress About Finance, Paying for College*. NASFAA. NASFAA.org

Appendix E: Red Route Matrix

Prospective Student

ALL OF THE TIME	Opportunities for in-person / hybrid learning	Scholarships and Financial Aid	Years of Completion	Curriculum Requirements (Credit Hours)
MOST OF THE TIME	Research Opportunities	How to Transfer Credit Units over	Locate Program Cost	Enrollment Requirements
SOME OF THE TIME	Resources for Licensure	Consult with an Advisor	Career Opportunities	Overview of the Program
VERY LITTLE OF THE TIME	Community and Involvement	Visit Campus	Dual-Major / Minor Programs	Application Process
	FEW OF THE PEOPLE	**SOME OF THE PEOPLE**	**MOST OF THE PEOPLE**	**ALL OF THE PEOPLE**

Appendix F: SEQ Scores Per Task



Appendix G: SEQ Survey

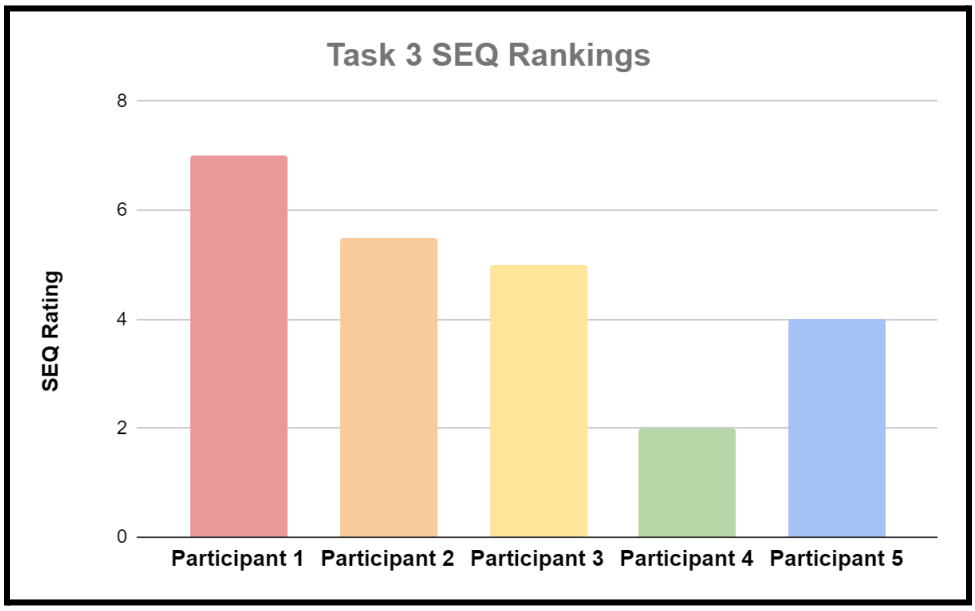
Task 01 : Overall, how difficult or easy did you find this task? *

	1	2	3	4	5	6	7	
Very Easy	○	○	○	○	○	○	○	Very Difficult

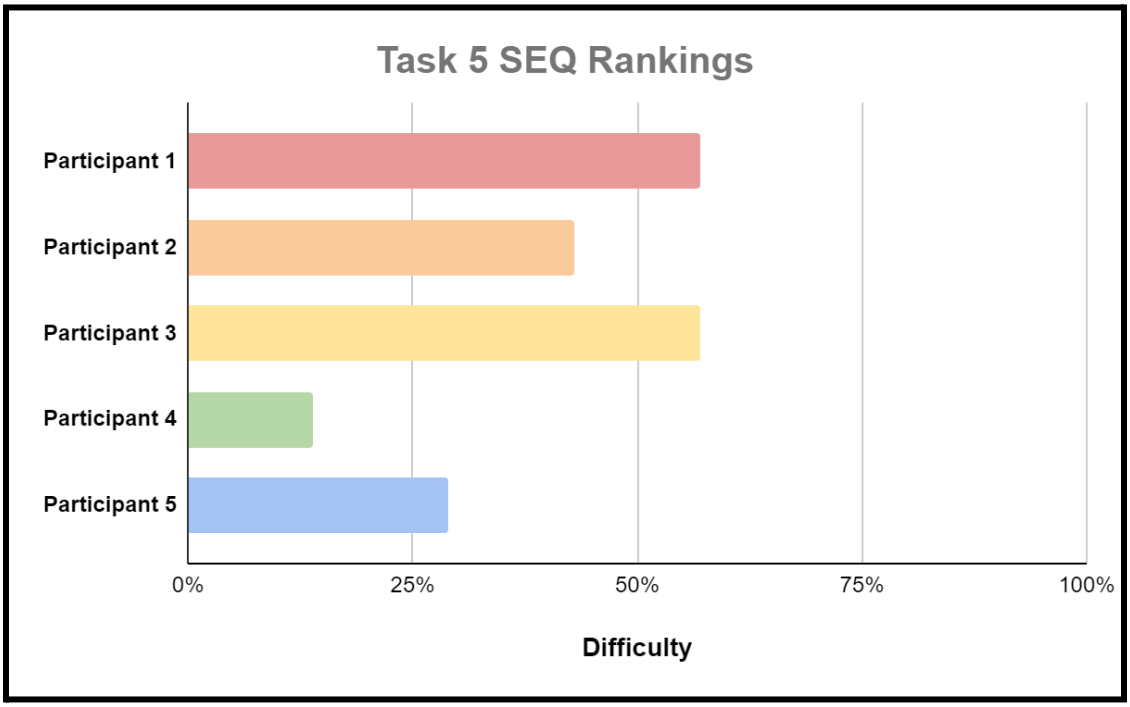
Appendix H: SUS Survey

SUS RESULTS	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Average
1. I think that I would like to use this system frequently.	3	3	3	4	4	3.4
2. I found the system unnecessarily complex.	2	2	3	2	1	2
3. I thought the system was easy to use.	4	4	4	4	4	4
4. I think that I would need the support of a technical person to be able to use this system.	3	2	1	2	1	1.8
5. I found the various functions in this system were well integrated.	3	3	3	4	4	3.4
6. I thought there was too much inconsistency in this system.	1	1	2	2	1	1.4
7. I would imagine that most people would learn to use this system very quickly.	4	3	4	3	4	3.6
8. I found the system very cumbersome to use.	3	2	2	2	2	2.2
9. I felt very confident using the system.	2	3	4	3	4	3.2
10. I needed to learn a lot of things before I could get going with this system.	2	2	3	3	2	2.4

Appendix I: Task 3 SEQ Rankings



Appendix J; Task 5 SEQ Rankings



Appendix K: Task 1 Usability Results

TASK 1			
Particiapnts	SUCCESS?	COMPLETION TIME	SEQ RANKING
P1	☑	0:58:15	3
P2	☑	0:47:00	2
P3	☑	1:07:00	2
P4	☑	0:52:00	2
P5	☑	3:10:00	1
MEAN	100%	1:22:51	2

Appendix L: Task 2 Usability Results

TASK 2			
Particiapnts	SUCCESS	COMPLETION TIME	SEQ RANKING
P1	☑	3:04:34	6
P2	☐	2:24:00	4
P3	☐	2:54:00	5
P4	☐	1:27:00	3
P5	☑	6:30:00	1
MEAN	40%	3:15:55	3.8

Appendix M: Task 3 Usability Results

TASK 3			
Particiapnts	SUCCESS	COMPLETION TIME	SEQ RANKING
P1	☑	7:23:54	7
P2	☐	2:57:00	5.5
P3	☑	3:36:00	5
P4	☑	2:08:00	2
P5	☑	8:40:00	4
MEAN	80%	4:56:59	4.7

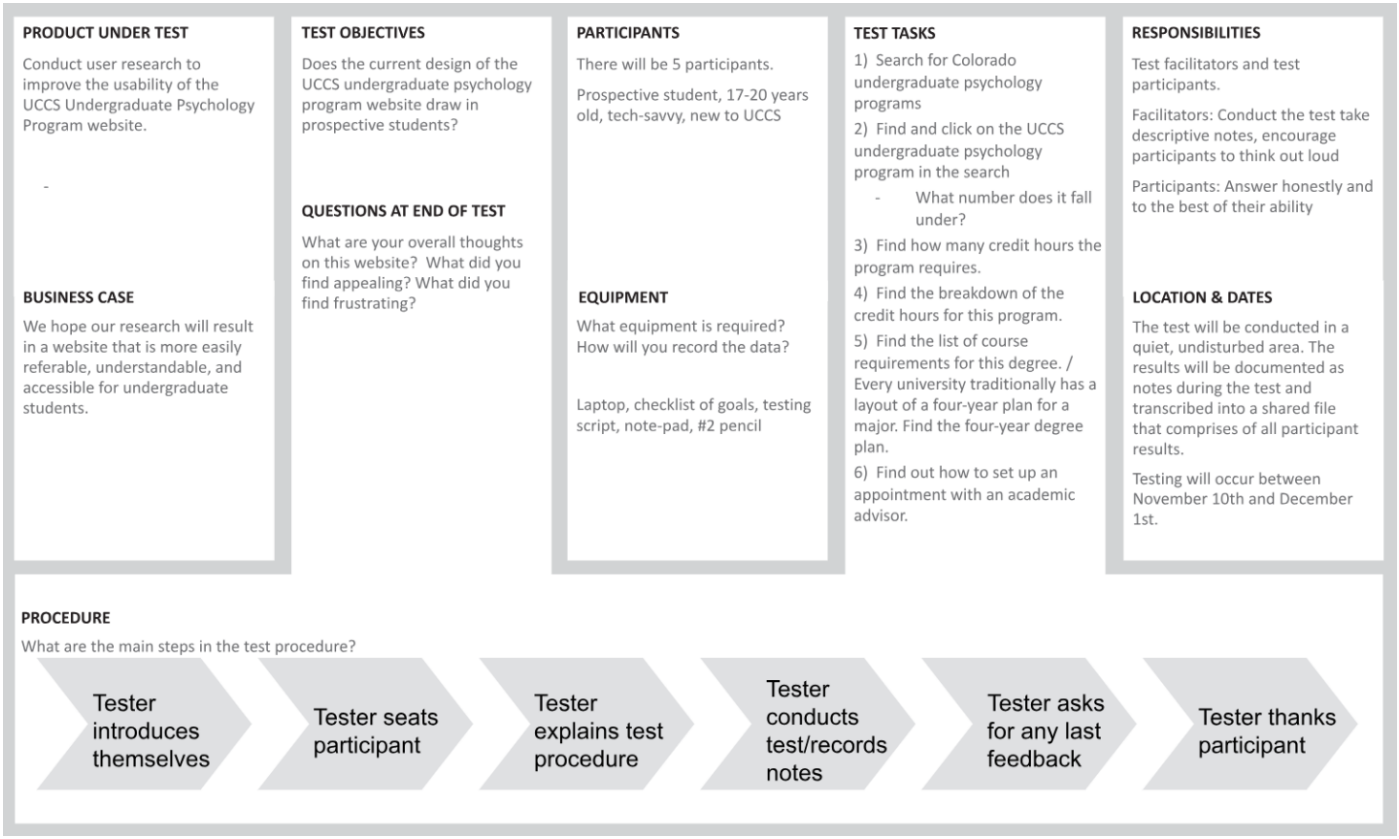
Appendix N: Task 4 Usability Results

TASK 4			
Particiapnts	SUCCESS	COMPLETION TIME	SEQ RANKING
P1	☑	5:56:30	6
P2	☐	4:23:00	7
P3	☑	0:46:57	4
P4	☐	1:23:00	7
P5	☐	10:57:00	5
MEAN	40%	4:41:17	5.8

Appendix O: Task 5 Usability Results

TASK 5			
Participants	SUCCESS	COMPLETION TIME	SEQ RANKING
P1	☑	2:46:53	4
P2	☑	4:45:00	3
P3	☑	2:06:00	4
P4	☑	0.29.00	1
P5	☑	13:02:00	2
MEAN	100%	5:58:18	2.8

Appendix P: Usability Dashboard



Appendix Q: Usability Testing Script

INTRODUCTION

***Hello **[participant],** my name's **[moderator]** and this is **[notetaker].** I'm going to walk you through today's session.*

Icebreaker

[Can ask the icebreakers while the computer is getting set up.]
***How are you today? Thanks for meeting with us.*

- *What did you do last week?*
- *How is your semester going?*
- *Do you have anything for next semester that you're looking forward to?*

Test Overview

***As mentioned in our email, we are working with the User Experience Research class at UCCS to gather research on the **usability** of the university's undergraduate psychology website. Our goal in conducting this test is to gather **feedback** and **insights** about the usability of the UCCS psychology program website to create a more **accessible** and **resourceful** page.*

***During this **30-minute session**, we will ask you to conduct **five tasks** for us--this can include searching for something in a search bar or finding something on a website.*

***Please feel free to **think aloud** as much as possible while you are completing these tasks. We really want to hear your thoughts, like:*

- *where you're navigating on the page,*
- *why you're clicking somewhere,*
- *what you expect to happen when you do click, etc.*

Your thought process is as valuable as the completion of the task itself.

[If the participant seems confused about the Think Aloud protocol, provide a window example]

Ex. How many windows are in your house?
We want to know **how** they solve the problem: "Five windows in the living room, two in the kitchen, etc."

***Please remember that we are **not testing you, we're testing the website**. So if something is not working, do not worry. Let me know and we can move on. If you need a break or to stop anytime, just let me know.*

Obtain Permission to Record Session

***With your permission, I'd like to record this test. The recording will **only** be used to help us figure out **how to improve the website** and **review for note-taking**. Only the individuals involved in this project will see the recording. Are you comfortable with me recording this test?*

[After recording starts]
***Thank you for permitting us to record the session. The recording will only be seen by the people working on the project. [Confirm that recording captures verbal permission]*

Pre-test Demographic Questions

***Now, I'm just going to ask you a few questions to understand your technology experience*

- *In hours, how much time do you usually spend online per day?*
- *On a scale of 1-5, how comfortable are you with using the internet?*
- *On a scale of 1-5, how comfortable are you with using social media? What platforms do you use?*

SCENARIOS AND ACTIVITIES

***Now, I am going to ask you to complete a few tasks for me to test the usability of the website. Again, please try to think out loud through each task.*
[Notetaker should prepare timer and observe for completion rate and time]

Scenario 1: UCCS Website SEO

***Imagine: you just graduated high school with a passion for psychology. You are looking for information about undergraduate psychology programs in Colorado.*

Task 1: Please search for psychology programs in Colorado

[Record browser and search terms]

Solution: Open browser > Look up search term > Record found websites

Completion rate (Y/N):
Completion time:
***Thank you for your thoughts. Now, fill out this quick form that I have printed for you.*
Complete SEQ task: ***SEQ (Single Ease Question) (forms.gle)***

HOMEPAGE TOUR

***This first task is very simple, about a minute long. I'd like you to explore the UCCS undergraduate psychology homepage—look around without clicking on anything and tell me the first impressions that come to mind.*

[Place the UCCS homepage in front of the participant. Give them 1-2 minutes to explore. **Prompt Think Aloud protocol**]

[Ask after 1-2 minutes]

- *What is the first thing you notice?*
- *Is there anything you like or dislike?*
- *What do you expect to learn on this website?*

Scenario 2: Learning About the Program

*** You think the program looks interesting, so you decide to look into what classes you would take.*

Task 2: Find the list of specific courses needed to complete the undergraduate psychology program

[Record user's thought-process as they find list]
[Does the users understand the information that is on the PDF?]

Solution: Explore UPP page > Find Program Requirements section > Major Requirements

Completion rate (Y/N):
Completion time:
***Thank you for your thoughts. Now, fill out this quick form that I have printed for you.*
Complete SEQ task: ***SEQ (Single Ease Question) (forms.gle)***

Remember: take a break for the sake of the user, moderator, and notetaker

***If you're feeling comfortable, we can continue with our next scenario. But if you need a water or bathroom break, please do not hesitate to tell us.*

Scenario 3: Cost of Attendance

*** You think the undergraduate program is awesome, but you can only go part-time since you'll be working full-time. You want to know how much it's going to cost.*

Task 3: Find the cost of the psychology program for a 9 credit hour semester

[Record user's thought-process as they find the cost]
[If list not found in previous step, make note of without deterring user (continue test)]

Solution: Explore UPP page > Find coursework section > Confirm courses > Note credits

Completion rate (Y/N):
Completion time:
***Thank you for your thoughts. Now, fill out this quick form that I have printed for you.*
Complete SEQ task: ***SEQ (Single Ease Question) (forms.gle)***

Scenario 4: Online Classes

*** Because you're working full-time, you want to take mostly online classes so it's easier to manage with your busy schedule.*

Task 4: Find out if you can take your undergraduate psychology courses online

[Record what number the website is in search results]
[We don't offer an online Psychology degree, do offer some classes online. PSY 2110 (core content course) is always in person due to lab]

Solution: Explore UPP page > Course Delivery: On Campus

Completion rate (Y/N):
Completion time:
***Thank you for your thoughts. Now, fill out this quick form that I have printed for you.*
Complete SEQ task: ***SEQ (Single Ease Question) (forms.gle)***

Scenario 5: Enrolling

*** You think the costs and schedule match close enough with what you need. You have decided that you want to enroll in the program.*

Task 5: Begin applying to the undergraduate psychology program

[Record user's thought-process as they apply UCCS UPP]
[If cost not found in previous step, make note of without deterring user (continue test)]

Solution: Psychology, BA page -> Admission Details section -> Apply Now button -> First-year Application button -> 2 Your Education tab -> Proposed Major

Completion rate (Y/N):
Completion time:
***Thank you for your thoughts. Now, fill out this quick form that I have printed for you.*
Complete SEQ task: ***SEQ (Single Ease Question) (forms.gle)***

POST-TEST INTERVIEW

[If tab not found in the previous step, make note of without deterring user (finish test)]
***Now, I'm going to ask you a few questions to gage your experience navigating the website:*

- *Do you feel there was enough information on the website to get excited about the program?*
- *How well would you say you were able to navigate the website?*
- *Did you find any aspects of the website confusing or challenging?*
- *Was the information you needed to find where you expected them to be?*
- *Were there any major problems you noticed in how well you could use the website?*

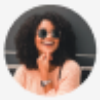
***Finally, please answer a brief* [SUS survey] *about the website's function and navigation.*
***Do you have any questions for me now that the test is done?*

Thank the Participant

We are grateful for your participation in our study. The time and effort you put into completing this test has been extremely beneficial in providing* ***insights *into* ***how people engage*** *with the UCCS website. The information we've acquired thanks to your help will be useful in* ***improving the usability*** *of the UCCS website for both current and future users. Rest assured that all participant data will be kept strictly confidential and used* ***only for research purposes****.*

Appendix R: User Journey Map

USER JOURNEY MAP / UCCS Undergraduate Psychology Program



ALICE WILLIAMS

Primary Goal: "I want an affordable and interesting way to become a psychologist."

USER INFORMATION

- Age: 18
- Device used: computer
- Interests: psychology
- Context: high school senior, average tech savvy, lack of knowledge about college process

SCENARIO

Task 2: Find the list of specific courses needed to complete the undergraduate psychology program.

JOURNEY MAP	FINDING PROGRAM REQUIREMENTS LOCATION		ACCESSING THE INFORMATION	LEARNING ABOUT THE PROGRAM	
STAGES	EXPLORE WEBPAGE 2-3 MINUTES	LOCATE MAJOR REQUIREMENTS 1 MINUTE	EXPLORE MAJOR REQUIREMENTS 30 SECONDS	FIND GENERAL REQUIREMENTS 1-2 MINUTES	IDENTIFY COURSES 2-3 MINUTES
GOALS	Interested in psychology, Alice looks for undergraduate psychology programs online.	Alice finds and explores the UCCS website to learn about their undergraduate program.	As a future part time student, Alice wants to see how many classes she'll have to take.	As a high schooler, Alice looks at the general and major program requirements.	Alice wants to discover what a bachelor's degree program could achieve for her.
QUESTIONS	1. Where would course requirements be located?	1. Does the 'Program Requirements' section have this information?	1. Is this link relevant? 2. Where does this link go to?	1. What does this information mean? 2. What are the general education requirements of the program?	1. What are the titles of these classes?
PAIN POINTS	I am nervous about adapting to a new environment for college.	I want to learn more about the program but I don't know where or what to search.	I am confused where to find the course requirements for the program.	I don't understand what part of the advising guide has what courses I will be taking.	I am worried that this degree plan will not match my goals if I enroll.
EMOTIONS	HAPPY	CONFUSED	ANGRY	ANGRY	CONTENT
TOUCHPOINTS	Searches for undergraduate programs using Google.	Finds UCCS program through Google. Clicks link and scrolls to find information.	Finds and clicks link to program credit hour requirements.	Scrolls to find information about required courses.	Reads information about required courses.
CHANNELS					
IMPROVEMENT OPPORTUNITIES	Make the webpage more engaging and welcoming to users by adding more imagery and icons.	Add summary descriptions of each section so that users can understand what each section is about.	Incorporate a website chatbot that will allow users to ask questions and receive answers quickly without searching through volumes of information.	Distribute the information onto the webpage through interactive drop-down menus so that users are not overwhelmed with information.	Add an FAQ section so that users can gather more general information if needed.