



April 20, 2021

Jim Berger, PhD, Director  
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Dear Jim Berger,

We have completed our six usability evaluations on the GCSU Center for Teaching and Learning (CTL) Faculty Resources website. In this document, you will find details on the methodology, findings, and recommendations.

Overall, the majority of the participants thought the website was a great resource to have available. However, we have identified three categories for improvement in terms of the navigation, design, and search bar construction. We recommend the following revisions:

1. Reorganize content sections into a logically labeled hierarchy.
2. Create a quick guide section with content specific for new instructors.
3. Develop a standardized process for posting new content.
4. Encourage the use of the search bar.

In applying these changes, we believe that the GCSU CTL Faculty Resources website will become a more effective source for informing the current and prospective faculty members.

Amid the current COVID-19 pandemic, we thank you for your concerted efforts and for the opportunity to evaluate the usability of the GCSU CTL Faculty Resources website.

Sincerely,

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# Analyzing the Usability of GCSU Center for Teaching and Learning Faculty Resources Website

Prepared for  
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Georgia College & State University

April 20, 2021

## Executive Summary

Testing the usability of a website is an excellent way to gauge how easily users are able to navigate an interface to find what they are looking for. This study includes an evaluation of the GCSU Center for Teaching and Learning Faculty Resources website, an analysis of the data, and a list of recommendations to improve the usability of the site.

The evaluation consisted of studying six participants from two demographics (31-50 years old, and 50+ years old) via Zoom. Participants participated in a usability test that measured the findability, clarity, effectiveness, and additional usability strengths and weaknesses of the GCSU CTL website.

*Table 1: Usability Study Findings with Recommendations*

<b>Finding</b>	<b>Recommendation</b>
Navigation: All participants noted challenges with resource labeling and hierarchy in the site navigation and struggled to find the information they were seeking.	Reorganize content sections into logically labeled hierarchy.
Navigation: Resources for new instructors were often several levels deep and would be difficult for users to quickly find.	Create a quick guide section with content specific for new instructors.
Content: Resources were often posted without details such as clear title, file type with properties, or posting date which causes confusion for users as to relevance.	Develop a standardized process for posting new content.
Search: Position of the search function was overlooked leading users to completely skip the feature.	Encourage the use of the search bar.

With these changes, we believe GCSU will provide faculty users with a more streamlined experience.

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# Analyzing the Usability of GCSU Center for Teaching and Learning (CTL)

## Purpose Statement

The GCSU Center for Teaching and Learning wanted our team to evaluate whether the Faculty Resources website was usable for faculty members. The content was rapidly implemented to support remote teaching in an existing learning management system platform rather than a content management system. This quick implementation resulted in less-than-ideal information dissemination combined with system limitations, both of which lead to increased technical support requests and user frustrations.

Our purpose was to carefully analyze the user experience and provide feedback based on several sources of data: a usability test, a post-task questionnaire, a System Usability Scale (SUS) evaluation, and a reaction cards evaluation. In this document, we report on how the usability analysis was accomplished, as well as the results from testing participants. Finally, our team details a list of recommendations to address these issues.

## Methodology

This section outlines how the test was performed for each test participant. By following this prescribed methodology, we ensured that we obtained valid and reliable usability findings.

## Test Objectives

The objectives of this test were to:

- Examine if the purpose of the website was clear.
- Identify any missing components of the website.
- Determine if faculty recommend changes to the website.
- Highlight any additional usability strengths and weaknesses present.

## Participants

We were tasked with testing faculty members and recruited a total of six participants from two demographics: 31-50 years old, and 50+ years old. Testing two subgroups allowed us to better understand the varying needs and expectations of younger versus older faculty members.

## Evaluation Methods and Metrics

Our methodology was selected to include multiple methods of data collection resulting in both quantitative and qualitative data. The methods are listed below:

- Usability test
  - Time spent per task
  - Success or failure per task
  - Participant behaviors, actions, and quotes
- Post-task questionnaire (Google Form)
- System Usability Scale evaluation (Google Form)
- Reaction cards evaluation (Google Form)

By conducting a usability test, we identified areas where people struggled with the GCSU CTL website and made recommendations for improvement. Since usability testing employs real users accomplishing real tasks, it can provide objective performance data, such as time spent on task, error-rate, and task success or failure. The observations helped us gain empathy with users and assisted with the creation of alternative designs that better support those tasks.

In addition, our participants were asked to fill out a post-task questionnaire after each task to provide information regarding their experience with the specific task. We also chose the System Usability Scale (SUS) to provide reliable quantitative data regarding the usability of the website. Lastly, a reaction cards evaluation was utilized to allow our participants to summarize their experience with the GCSU CTL website.

## General Protocol

Each test session began with the moderator or note taker sending a pre-test email to the participant. The pre-test email was sent ten minutes prior to testing, which included links to the Zoom call, consent form, post-task questionnaire, SUS evaluation, and reaction cards evaluation. Once the participant joined the Zoom meeting, the moderator began the test session and read from a script.

The moderator began recording the Zoom meeting once the participant submitted the consent form. As the GCSU CTL website required credentials, participants were asked to login before sharing their screen. After the participant successfully logged in and began sharing their screen, the usability test commenced.

The moderator read out the scenarios and directed the participant to complete tasks associated with each scenario. After the participant completed each task, they were asked to complete a post-task questionnaire. The post-task questionnaire consisted of two questions: one to rate the difficulty of the task, and another to ask what made the task easy or difficult (see Table 5). As

the participant completed the tasks, the note-taker recorded time spent on each task, whether the participant successfully completed each task, and any notable behaviors, quotes, and metrics.

After completing the usability test, the participant was asked to complete a System Usability Scale (SUS) evaluation (see Appendix C) and a reaction cards evaluation (see Appendix D) through Google Forms. Afterwards, the participant was thanked for their time and the test session concluded.

## Tasks and Scenarios

Each participant was asked to complete the following tasks:

*Scenario: You need to find resources on how to set up an online course in GeorgiaVIEW.*

Task 1: Find how to set up and deliver a course (instructor guide).

Task 2: Find a video on how to create an assignment.

Task 3: Find how to use the announcement feature.

*Scenario: You have been trying to use Microsoft Teams rather than Zoom and need guidance.*

Task 4: Find out how to schedule a class with Microsoft Teams.

Task 5: Find the number to call if you are experiencing technical difficulties.

*Scenario: You have been asked by a student to provide accessible materials for a course.*

Task 6: Find an accessibility checklist for faculty use.

Task 7: Find a video on how to create accessible Microsoft PowerPoint documents.

## Findings

We analyzed our findings based on a comprehensive evaluation of our data. We analyzed our findings based on a comprehensive evaluation of our data including the System Usability Scale averages. The standard average system usability scale (SUS) score is 68. Our average test SUS score was 53.75, which indicates that the GCSU CTL website has a lower-than-average usability level.

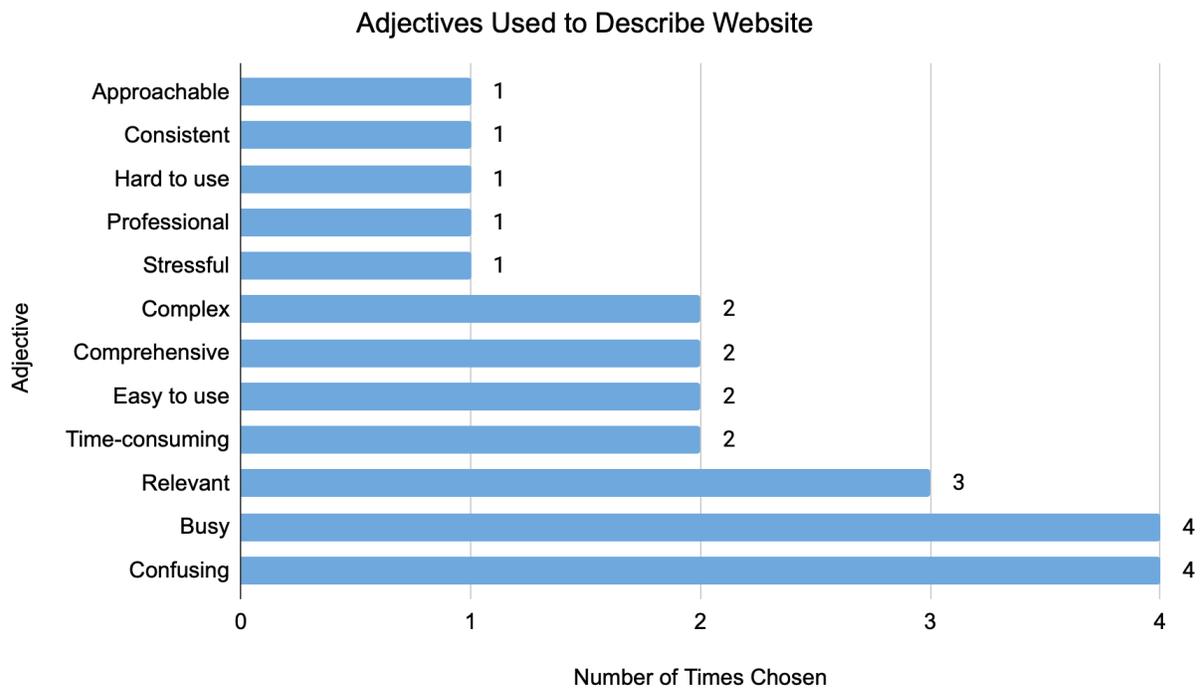
We noted three main areas of frustration for our participants: navigation, design, and search bar construction. See Table 2 below for an overview of findings.

*Table 2: Overview of Findings*

Category	Problem Identified	Description	Number of Participants Affected	Level of Severity (highest being 1)
Navigation	Findability	Content is buried under hastily arranged labels, which confuses users leading them to the wrong resources.	6/6	1
	Subsection Accessibility	Content most helpful for new instructors is difficult to find due to deep levels and/or labeling.	3/6	2
Content	Consistency	Content not labeled for specific types of resources (video, document, external link), which confuses users leading them to the wrong resources.	2/6	3
Search Bar	Findability	Participants requested a search function even though it is available at the top of every page.	2/6	4

### Positive Findings

Our team used reaction cards for the post-test evaluation which consisted of 20 different adjectives the participant could choose from that described their overall experience with GCSU CTL Faculty Resources website. Half of the adjectives selected to describe the website were all positive. As shown in Figure 1 below, the top three positive adjectives chosen were: relevant, comprehensive, and easy to use. Direct quotes of why each participant chose those words are located in Table 9 in Appendix D.



*Figure 1. Reaction Cards Results*

Three out of six participants thought the site was relevant. Participants thought there was a lot of useful and essential information on the website. By having content that is relevant to the target audience, the website will seem valuable.

Two out of six participants thought the website was comprehensive and easy to use. Participants thought that all of the information that they may need would be located somewhere on the site. By having a comprehensive website, the user should be able to receive all the necessary information they are looking for. Another participant thought that since the faculty is already used to the layout of the GeorgiaVIEW system, the information is easier to find.

## Navigation

The large quantity of resources available to participants contributed to user challenges and frustration when using the site. Several participants suggested clear labels and that hierarchy should be reviewed to improve findability.

One participant who rated the first scenario and associated tasks as “difficult” said that it was “*too much to navigate, the tabs are overloaded*” (Participant 2, 50+). Another participant who described navigation tasks as difficult added “*I couldn’t find the link on the website or any links I looked at*” (Participant 4, 31-50). See Appendix B for a complete post-task analysis.

A high rate of task failure for the first scenario, “Find resources on how to set up a class in GeorgiaView,” correlated with a neutral or difficult rating for post-test interview results for most participants. Specific to resources for new instructors, elevating content to the top level for new users was suggested for findability. Three participants said they would have to create a cheat sheet with links to content they used most frequently.

## Content

Inconsistency in the labeling of resources within content modules contributed to participant confusion when looking for certain types of content such as video or PowerPoint. Most participants were able to find video resources, but several went outside the GCSU site to accomplish the request. While website labeling conventions may vary for specific sites, certain elements such as title, file type with properties, and date posted, are usually included. Some resources had these labeling elements while others did not.

One participant who rated this task as difficult stated “*there are too many options and no clarity about where I can find the video specifically*” (Participant 6, 31-50).

## Search Bar

Participants requested the implementation of a search function or used the search bar found on other websites, but no participants found or used the search field already in place on the GCSU website. While a well-integrated search function can be helpful, if users do not see the search elements in the design of the site, that potential support is lost.

## Recommendations

### 1. Reorganize content sections into logically labeled hierarchy.

Due to the number of failed tasks and amount of time spent on tasks (Appendix A), we recommend that the content sections be listed in a logical hierarchy. For instance, some articles are more important than others so they should be listed higher up in the list. Several participants had to scroll past a lot of information and articles that were not important to them.

While one participant was attempting to complete a task, she stated, “*I see why the students go crazy. I would make a cheat sheet to remind me of what is in each tab*” (Participant 2, 50+).

A number of participants believed the resources for new instructors were too deep in the site structure for any user and suggested the use of a quick guide section with highlighted information. This module could be available at the top of the navigation hierarchy and curated with content from sections that existing faculty suggested were helpful when getting started. See Figure 2 for a mockup of a possible quick guide section for new instructors.

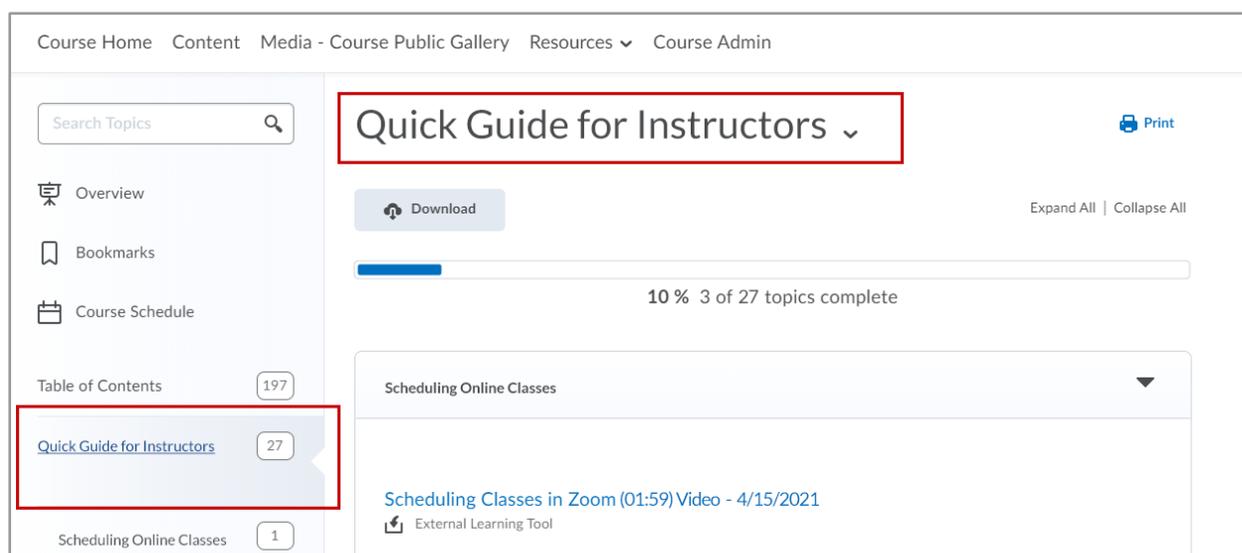


Figure 2. *Quick Guide for Instructors (Prototype)*

This mockup shows the addition of a Quick Guide for Instructors section just below the Table of Contents with an example module using the information suggested in Recommendation 3 for resource title, file type with properties, and date posted.

## 2. Develop a standardized process for posting new content.

All participants mentioned the depth of content available but often commented about confusing labels, options, and lack of clarity about resource types. Along with a content inventory and review process, we recommend developing a standard operating procedure (SOP) for posting new content within a revised site taxonomy (see Recommendation 1). By publishing a SOP with appropriate job aids for content owners of the site, new or updated resources would be added without further confusion to the site hierarchy. See Figure 3 below for an example of posting resources with clear title, file type with properties (i.e. length, size), and date posted.

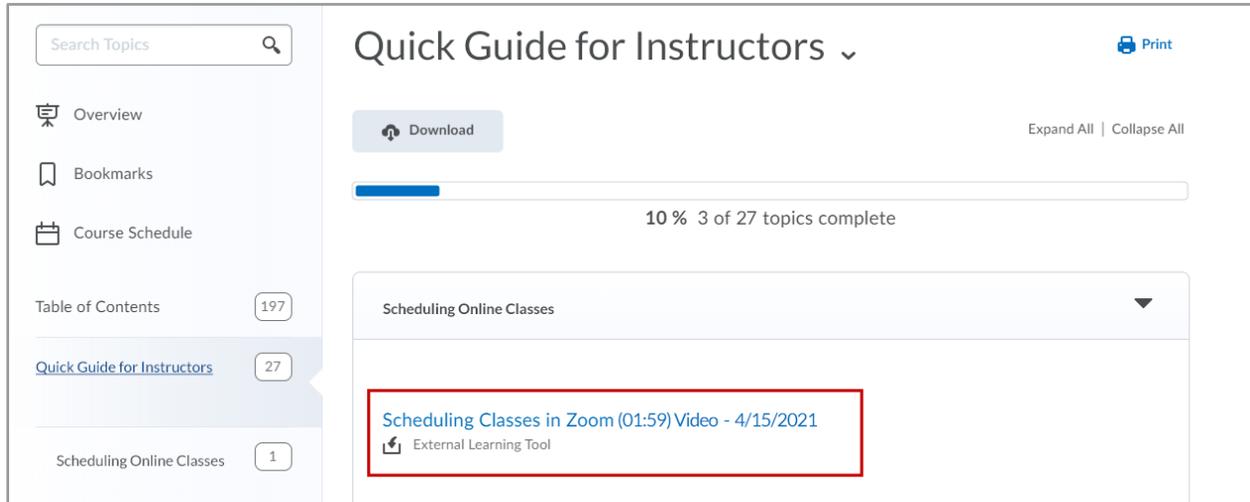


Figure 3. Standard Content Title Mockup

### 3. Encourage the use of the search bar.

All six participants requested a search bar even though there is one present at the top of the website. Since every participant overlooked the search bar, we recommend adding a search button that directly links the user to the search bar. The button should be added at the top of each resource. The addition would help users locate specific information more efficiently. It would also decrease the users' level of frustration. See Figure 4 below for a possible button that could be added at the top of a page.

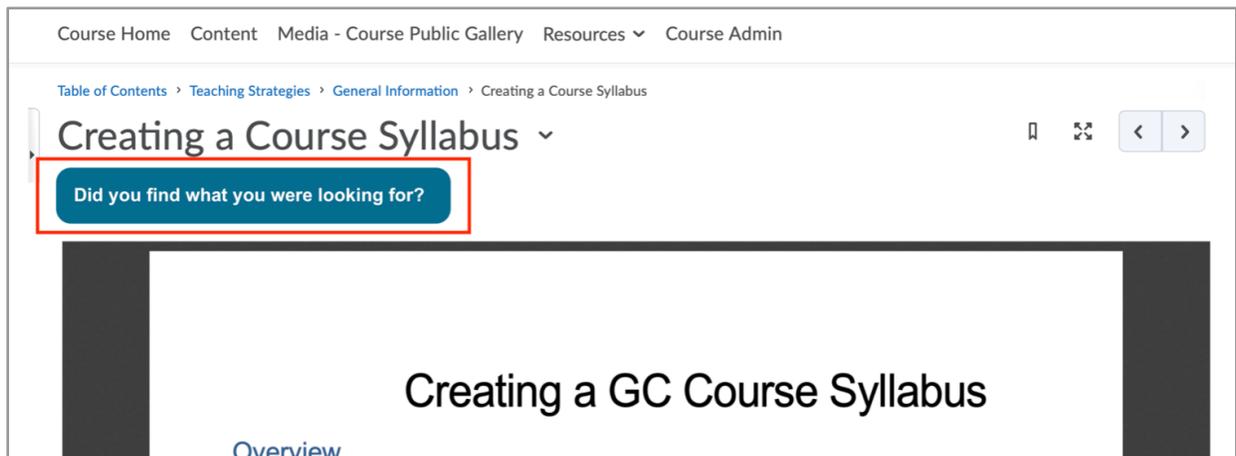


Figure 4. Search Bar Link Mockup

## Appendix A: Tasks Metrics

Table 3: Time Spent on Each Task & Success Rate

	#1	#2	#3	#4	#5	#6	Average*
<b>1: Find how to set up and deliver a course (instructor guide).</b>	2:15	1:24	:51	:59	1:35	2:56	1:40
	failure	failure	success	success	failure	failure	2/6
<b>2: Find a video on how to create an assignment.</b>	:35	1:49	:42	:07	5:06	2:32	1:48
	success	success	success	success	failure	failure	4/6
<b>3: Find how to use the announcement feature.</b>	1:05	2:49	:22	1:12	3:00	1:46	1:32
	failure	failure	success	failure	failure	failure	1/6
<b>4: Find out how to schedule a class with Microsoft Teams.</b>	:17	:21	:41	:39	:56	:54	:38
	failure	success	success	success	success	success	5/6
<b>5: Find the number to call if you are experiencing technical difficulties.</b>	:32	:12	:33	:44	:17	:12	:25
	success	success	success	success	success	success	6/6
<b>6: Find an accessibility checklist for faculty use.</b>	:19	:22	:47	:15	:27	:11	:24
	success	success	success	success	success	success	6/6
<b>7: Find a video on how to create accessible Microsoft PowerPoint documents.</b>	:56	:15	3:22	:59	:20	2:19	1:22
	success	success	success	success	success	failure	5/6

\*Averages are calculated by adding up the number of successes/six participants.

## Appendix B: Post-Task Questionnaire

Participants responded to the following questions after each task:

1. How difficult was this task to accomplish?
  - a. Easy
  - b. Neutral
  - c. Difficult
2. What made this task easy or difficult for you?

*Table 4: Overall Rating Analysis*

	1 (Easy)	2 (Neutral)	3 (Difficult)
1: Find how to set up and deliver a course (instructor guide).	1 participant	2 participants	3 participants
2: Find a video on how to create an assignment.	3 participants	1 participant	2 participants
3: Find how to use the announcement feature.	1 participant	0 participants	5 participants
4: Find out how to schedule a class with Microsoft Teams.	3 participants	2 participants	1 participant
5: Find the number to call if you are experiencing technical difficulties.	4 participants	2 participants	0 participant
6: Find an accessibility checklist for faculty use.	6 participants	0 participants	0 participants
7: Find a video on how to create accessible Microsoft PowerPoint documents.	2 participants	2 participants	2 participants

Table 5: Rating Analysis by Age Group

	#1	#2	#3	#4	#5	#6	Average
1: Find how to set up and deliver a course (instructor guide).	2	3	3	3	2	1	2.3
2: Find a video on how to create an assignment.	1	3	3	1	2	1	1.8
3: Find how to use the announcement feature.	3	3	3	3	3	1	2.7
4: Find out how to schedule a class with Microsoft Teams.	1	1	2	3	1	2	1.7
5: Find the number to call if you are experiencing technical difficulties.	2	1	1	2	1	1	1.3
6: Find an accessibility checklist for faculty use.	1	1	1	1	1	1	1
7: Find a video on how to create accessible Microsoft PowerPoint documents.	2	1	2	3	1	3	2

Ratings were quantified as follows: ratings of “Easy” are equivalent to a 1, ratings of “Neutral” are equivalent to a 2, and ratings of “Difficult” are equivalent to a 3.

The orange columns represent the 50+ age group and the green columns represent the 31-50 age group.

Five out of six participants thought that the task “Find how to use the announcement feature” was difficult. Unfortunately, all five participants failed the task. One participant was able to find the answer since she knew the announcement feature is a tool, so she checked under tools.

Table 6: What Made Tasks Easy or Difficult

	What made this task easy?	What made this task difficult?
1: Find how to set up and deliver a course (instructor guide).	<ul style="list-style-type: none"> <li>● title of the options</li> </ul>	<ul style="list-style-type: none"> <li>● content was somewhat vague</li> <li>● unaware of the section title</li> <li>● no direct link on the main page</li> </ul>
2: Find a video on how to create an assignment.	<ul style="list-style-type: none"> <li>● already saw the folder before</li> <li>● clear task</li> </ul>	<ul style="list-style-type: none"> <li>● too much to navigate</li> </ul>
3: Find how to use the announcement feature.	<ul style="list-style-type: none"> <li>● knew announcement was a tool</li> </ul>	<ul style="list-style-type: none"> <li>● no direct link</li> <li>● buried under content</li> </ul>
4: Find out how to schedule a class with Microsoft Teams.	<ul style="list-style-type: none"> <li>● already saw the content on main page</li> <li>● the path to the document was clearly marked and easy to follow</li> <li>● the title was clearly written</li> </ul>	<ul style="list-style-type: none"> <li>● wrong label</li> </ul>
5: Find the number to call if you are experiencing technical difficulties.	<ul style="list-style-type: none"> <li>● available on the guide</li> <li>● prior knowledge</li> <li>● expectations met</li> </ul>	
6: Find an accessibility checklist for faculty use.	<ul style="list-style-type: none"> <li>● name of folder was clear</li> </ul>	
7: Find a video on how to create accessible Microsoft PowerPoint documents.	<ul style="list-style-type: none"> <li>● prior knowledge</li> <li>● clear title</li> </ul>	<ul style="list-style-type: none"> <li>● too many options</li> <li>● no clarity</li> <li>● resources was hidden within a lot of other content</li> </ul>

## Appendix C: SUS Survey

Table 7: Notable SUS Questions

Notable SUS Questions	1 (Strongly disagree)	2 (Disagree)	3 (Neutral)	4 (Agree)	5 (Strongly agree)
I think that I would like to use this website frequently.		2 participants	2 participants	2 participants	
I found the website unnecessarily complex.	1 participant			3 participants	2 participants
I thought there was too much inconsistency in this website.	1 participant	4 participants	1 participant		
I felt very confident using the website.			4 participants	2 participants	
I needed to learn a lot of things before I could get going with this website.	3 participants	2 participants	1 participant		

One participant who answered “strongly agree” to “I found the website unnecessarily complex” stated that they felt “*there is a lot of stuff here that looks alike*” (Participant 3, 50+).

One participant who answered “neutral” to “I think that I would like to use this website frequently” stated that they “*found the website hard to navigate.*” (Participant 4, 31-50).

Table 8: SUS Scores

Age Group	SUS Score	Average by Age Group
31-50	47.5	61.7
	85	
	52.5	
50+	42.5	45.8
	37.5	
	57.5	
<b>Total Average</b>		<b>53.75</b>

The younger subgroup had an average score of 61.7 compared to the older subgroup average score of 45.8. This is an indication that the younger subgroup (31-50) rated the site on average more usable than the older subgroup (50+).

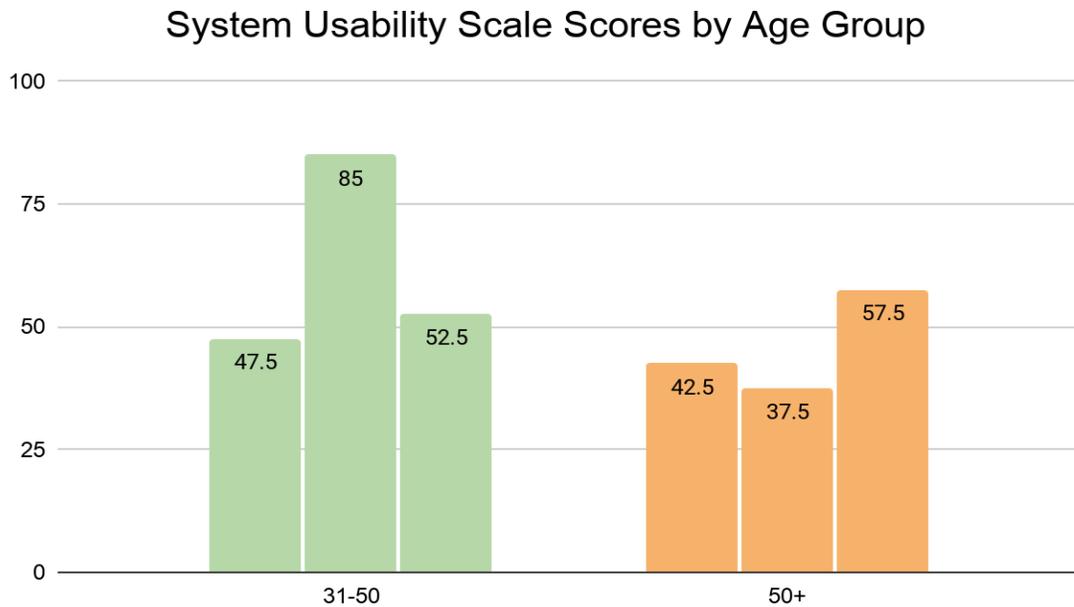


Figure 5. SUS Scores By Age Group

## Appendix D: Reaction Cards

*Table 9: Top Chosen Reaction Cards*

<b>Words Chosen</b>	<b># of Times Chosen</b>	<b>Quote</b>
Busy	4	<p>“There is a lot of stuff going on.” (Participant 1, 50+)</p> <p>“It seemed cluttered.” (Participant 2, 50+)</p> <p>“There were a lot of topics...needs a search bar.” (Participant 4, 31-50)</p>
Confusing	4	<p>“There are a lot of topics with similar names.” (Participant 4, 31-50)</p>
Relevant	3	<p>“The information is there.” (Participant 5, 31-50)</p> <p>“There is good stuff there.” (Participant 1, 50+)</p> <p>“It’s essential.” (Participant 4, 31-50)</p>
Complex	2	<p>“Some of the tabs are overloaded and confusing.” (Participant 2, 50+)</p> <p>“Definitely not easy to use.” (Participant 1, 50+)</p>
Comprehensive	2	<p>“I doubt there isn’t anything that isn’t in the website.” (Participant 3, 50+)</p> <p>“I haven’t read through everything but all the information I needed was there.” (Participant 5, 31-50)</p>
Easy to use	2	<p>“The faculty already knows the layout and they can find everything.” (Participant 5, 31-50)</p>
Time-consuming	2	<p>“If I really want to dig into [the site] it’s time consuming.” (Participant 1, 50+)</p>