ATHENA

UNIVERSITY OF GEORGIA

Athena Usability Protocol

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Document Overview

This document describes a test plan for conducting a usability test on the University of Georgia's online service, Athena, a website used to sign up for classes and view information on financial aid. We're interested in seeing how hard it is to accomplish common tasks like registering and researching classes, dropping classes, viewing financial aid information, accessing the student account, and clearing holds.

Our research questions are as follows:

- Is it easy for students to navigate on the homepage and access Athena features and Student Account?
- Are certain actions safe for the user like accepting/rejecting financial aid and dropping classes?
- Are students satisfied by the class search and registration interface? What makes it hard or easy for them to plan and register their classes? Is it easy for incoming freshmen and new students to learn the class registration process?
- Is it easy for users to clear holds like contact information holds?
- Is the financial aid page easy to understand and is everything organized?

Procedure

Before beginning the usability test, the participant must first complete the pre-test questionnaire. The participant will then take part in the usability test online through Zoom. The participant will be monitored by an interviewer, who will lead them through a scenario in which the participant is intending to register for classes in the Fall and ask them to complete various tasks. The participant's screen and voice will both be recorded for the duration of the Study, and will be observed later by data loggers and observers to record and gather additional information. A post-test questionnaire will be completed after the usability test is finished.

Roles

Interviewer: Leads participants through the usability test by following the user test script and assists participants when needed

        Interviewer: Ford, Reginald V.

Data logger: Records the amount of time and pathway that participants take to complete each part of the task

        Data logger: Luu, Chau T.,Zhang, Ellen

Observer: Makes note of additional comments participants may be making, assists data logger in identifying procedural errors or other concerns that may compromise the data

        Observer: Sturges, Victoria M., Fang, George H.

Athena Usability Study Consent Form

Purpose: Thank you for your interest in participating in our Athena Usability Study ("Study") conducted by Team 2: Lil Sebastian Tribute Team ("Team" or "We). The Purpose of this Study is to help us understand how people use Athena for a Group Project at the University of Georgia for the class NMIX 4200/6200.

Your participation in this study is voluntary: By participating in the Study, you confirm that you are over the age of eighteen (18) and you understand that your participation in this Study is voluntary. You may choose to decline to answer a question you do not feel comfortable answering. You may also take a break at any time during the Study or drop out from the Study at any time, including during the Study. If you have questions about the Study, feel free to ask the Team at any time.

Information We Collect: This Study will collect personal information including but not limited to your name, contact information, and age. This Study may also collect your face, voice, and/or likeness using computer screen recordings, video, photo, and/or audio. We will watch you perform and/or simulate tasks on Athena such as adding a class and ask you some questions at the beginning and at the end of the Study.

Data & Privacy: We respect your privacy and will be careful in keeping your personal information confidential. However, since this Study uses the internet for data transmission, confidentiality can not be guaranteed while your data is being transmitted. Your personal information and screen recordings will not be shared outside the Team. We will store and use the data collected during the Study for research purposes only. Data collected during the Study will be stored for as long as necessary. You may request your personal information to be deleted by sending an email request to the Team at ez97512@uga.edu. However, we can choose to not delete data that does not identify you personally. We may also share report(s) outside the Team that include your comments and actions but your data will be de-identified and not linked to you in any way.

Risks: There are no known risks involved with this Study.

Consent: By signing below, you agree that you have read this consent form, had all questions answered, and are giving the Team consent that you agree to participate in this Study voluntarily.

_____   _____
Participant's Signature   Date

_____   _____
Usability Tester Signature   Date

User Test Script

Interviewer: Hi, thanks for coming in! My name is ____. Before beginning, I would like to explain a couple of things. You probably have a pretty good idea of what we're doing today but to make sure we're on the same page, I'll go over everything briefly.

We're testing Athena which is the student portal where UGA students can register for classes and access their student account among other things. This study will last approximately _____ minutes. If you have any questions just let me know.

I will give you some tasks that will require navigating through Athena. Please try to complete the tasks to the best of your ability. However, as we move through the tasks, keep in mind that we are testing Athena, not you. We would like to know your thought processes as you navigate through the website so please verbalise what you're thinking as you try to complete each task. Please be as honest as possible as this will help us better understand your experience with Athena. Before you start each task, please say "start" to indicate that you are starting the task and say "done" when you think you have successfully completed the task.

Aside from the pre-test and post-test questionnaires, the session will be conducted through Zoom, primarily utilizing its screen sharing feature. With your permission, we will be recording the screen as well as our conversation. The recording will only be seen by the members of our team and will allow us to observe your experience with Athena after the session for study purposes.

If you are still interested in participating in this study, I would like to ask you to sign the consent form. Please read the form carefully as it contains important information regarding your participation in the Study as well as our privacy policy. Please let me know if I can clarify anything on the form. I will send you a link to a Google Form consisting of the consent form as well as the questionnaires. Once you have signed the consent form, please do not close the window to the form as we will refer to it later.

- Provide link to the consent form
- Begin recording the screen once the participant signs the form.

Before you begin the tasks, I would like to ask you to complete the Pre-Test Questionnaire located on the next page. Please click the next button on the google forms. Please let me know when you are done. We will come back to the Post-Test Questionnaire at the end of the Study.

- Provide link to the Pre-Test Questionnaire
- Wait for participant to complete form
- Remind participant to not close the browser window with the Google Form

Alright. You will be presented with several hypothetical scenarios, in which I will ask you to complete certain actions or report a certain result. For each task, please verbally indicate

when you are beginning each part of the task by saying "start" and saying "done" when you believe you have completed that part of the task. Please try to think aloud throughout the session as much as you can. Please have your smartphone near you in case Athena asks for a second step authentication. Before we begin, do you have any questions?

Task 1: It's almost the beginning of Fall 2020 semester! You will be registering for classes in the Fall 2020 term. However, in order to register, you must confirm your contact information, clear any outstanding holds, and review your financial aid status.

How would you login to Athena before verifying your contact information?

- Show and/or confirm the starting page for the task
- Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed. If the participant fails this step, the interviewer may end the Study as this is a catastrophic failure in which participant will not be able to complete additional tasks.
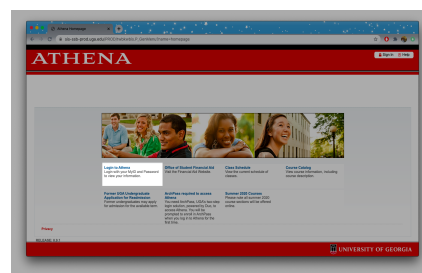
Starting Page

Task 2: Every semester, you need to clear your Contact Information Hold in order to register for classes. Starting from the Athena homepage, how would you check if you have holds on your record?

- Show and/or confirm the Athena homepage
- Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed.
- Wait for the participant to clear outstanding holds (if applicable)
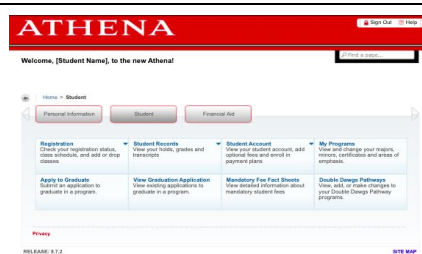
Athena Homepage/Menu Screen

Before we proceed to the next step, please clear any outstanding holds you currently have. Once you have done so, please indicate by saying "Done" and return to the Athena homepage once you are finished.

Task 2.1: You want to make sure all of your contact information is correct before you register. How might you view your addresses and phone numbers on Athena? For this task,

you do not need to click the button to actually view your addresses and phone numbers, you can just hover your mouse over the button.

> - Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed.

Task 2.2: Return to the Athena homepage. Now, how would you view your Emergency Contacts? For this task, you do not need to click the button to actually view your Emergency Contacts, you can just hover your mouse over the button instead.

> - Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed.

Task 3: In order to satisfy University of Georgia requirements, you need to take some general electives. You've always wanted to improve your skills on public speaking, and luckily, there's an Intro to Public Speaking class (COMM1110) available with a few spots left. Starting from the Athena homepage, how might you find and register for the class COMM 1110 that is on Wednesday and starts at 5PM with Instructor Jason David Myres?

However, if you have more than 14 hours already registered on your schedule or the class time conflicts with your current schedule, you may indicate that you have completed the task when you are hovering over the Register button instead of clicking on it.

> - Post class details in the chat bar in case the participant has a difficult time remembering the class details.
> - Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed.

Task 3.1: Now that you have added this class to your schedule, please go back to the Athena menu screen. How might you view the location (building name and room number) of the COMM 1110 class?

If you did not actually register for the Public Speaking class at the beginning of this task, please find the location of another class on your schedule.

> - Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed.

Task 3.2: You want to see how this class will fit in with the rest of your schedule. Going back to the Athena menu screen, how might you see the weekly schedule of all your classes in the fall for the week of Aug 31, 2020?

- Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed.

Task 3.3: You have decided that you actually don't want to take the Intro to Public Speaking class because it's very late in the day. Starting from the Athena homepage, how might you drop the class from your schedule?

If you did not register for the Public Speaking class at the beginning of this task, you may simulate dropping another class that you already have in your schedule. Indicate that you have completed the task when you are hovering over the Submit button instead of clicking on it.

- Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed.

Task 4: You want to make sure that your cost of attendance will be covered by your financial aid since you intend to take classes in the Fall. Starting from the Athena homepage, how might you view the status of your academic progress for financial aid eligibility for the year 2020-2021?

- Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed.

Task 4.1: You want more information on applying for financial aid. Starting from the Athena menu screen, how might you find more information about applying for financial aid and see the Office of Student Financial Aid's application process

- Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed.

Task 4.2: Now that you've updated yourself on your financial aid status, you want to make sure that you know where to make payments for your tuition, along with other fees. Starting from the Athena homepage, how might you access your student account? You may stop once you arrive at the login screen.

- Allow the participant to proceed until the task is completed, or the participant becomes frustrated, given up, or 5 minutes has passed.

End of Study: You've finished the last task! Thank you so much for participating in our Study! Before I end the call, please fill out the Post-Test Questionnaire. A copy of the consent form will be available to download through a link that will appear right before you submit the questionnaire. Once you've submitted the questionnaire, I will end the call. Do you have any further questions now that we're done?

- Provide link to the Post-Test Questionnaire
- Answer any question(s) the participant may have
- Wait for participant to fill out Post-Test Questionnaire
- Stop screen recording and save the recording once the participant submitted the questionnaire
- End the Zoom call

User Tasks

For each task, please verbally indicate when you are beginning each part of the task and when you believe you have completed that part of the task, by saying either "start" and "done."

It is almost the beginning of the Fall 2020 semester! You are going to be registering for classes in the Fall 2020 term. In order to register, you must also confirm your contact information for the University of Georgia and ensure your financial aid status.

Task 1: Logging In

How might you login to Athena before verifying your contact information?

Did the participant successfully complete the task?	YES/NO
Time taken to complete task:	

Definition of Success: Participants able to login to Athena and arrive at the menu screen shown below (3rd image below). If a participant is not able to arrive at the menu screen, it will be considered failure. The Interviewer may end the Study for a participant because failure to complete this task is a catastrophic failure and will prevent participants from completing additional tasks.
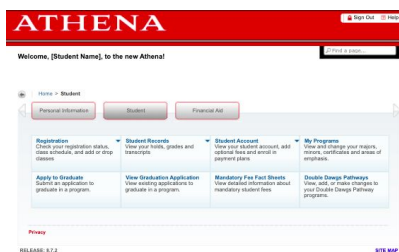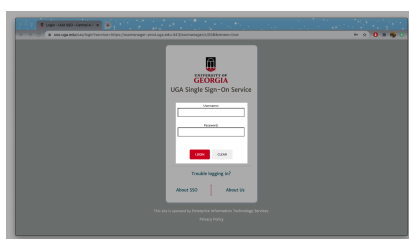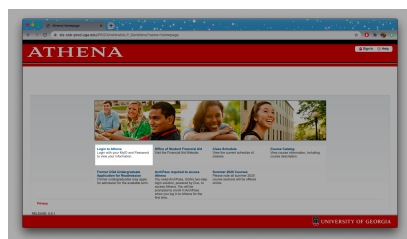
Participants may arrive at the following screens.　　　　　⬆Menu Screen/homepage

Task 2: Clearing/Viewing Holds

Every semester, you need to clear your Contact Information Hold in order to register for classes. Starting from the Athena menu screen, how might you check to see if you have holds on your record?

Did the participant successfully complete the task?	YES/NO

Pages visited to complete task:	Time spent per page:
Athena homepage	5 secs

Total pages:	Total time:

Definition of success: Participant clicks either the view holds button or the clear student accounts acknowledgement hold button, shown in the below button.

If the participant has a hold, ask them to clear the hold, then continue to the next part of the task.

Task 2.1 Viewing Addresses and Phones

You want to make sure all of your contact information is correct before you register. Go back to the Athena menu screen, how might you view your addresses and phones on Athena? For this task, you do not need to click the button to actually view your addresses and phones, you can just hover your mouse over the button.

Did the participant successfully complete the task?	YES/NO

Pages visited to complete task:	Time spent per page:

Total pages:	Total time:

Definition of success: The participant hovers the mouse on the View Addresses and Phones button, as shown below.

View Addresses and Phones	Update Addresses and Phones Students can use this link to update their contact information.	View Emergency Contacts	Update Emergency Contacts
View E-mail Addresses	Name Change Information	Social Security Number Change Information	Former UGA Undergraduate Application for Readmission Former Undergraduates may apply for admissions for the available term.

Task 2.2 Viewing Emergency Contacts

Starting from the Athena homepage again, how might you view your Emergency Contacts? For this task, you do not need to click the button to actually view your Emergency Contacts, you can just hover your mouse over the button.

Did the participant successfully complete the task?	YES/NO

Pages visited to complete task:	Time spent per page:

| **Total pages:** | **Total time:** |
| | |

Definition of success: The participant hovers the mouse on the View Emergency Contacts button, as shown below.

Task 3: Add/Drop Classes

To satisfy University of Georgia requirements, you need to take some general electives. You've always wanted to improve your skills on public speaking, and luckily, there's an Intro to Public Speaking class (COMM1110) available with a few spots left. Starting from the Athena homepage, how might you find and register for the class COMM 1110 that is on Wednesday and starts at 5PM with Instructor Jason David Myres?

[NOTE: If you have more than 14 hours already registered on your schedule or the class time conflicts with your current schedule, you may indicate that you have completed the task when you are hovering over the Register button instead of clicking on it.]

Did the participant successfully complete the task?	YES/NO

Pages visited to complete task:	**Time spent per page:**

Total pages:	**Total time:**

Definition of success: The participant correctly selected the class with CRN 43978 and then either hover over or click the register button, as shown below.

Task 3.1 Viewing Class Location

Now that you have this class added to your schedule, please go back to the Athena menu screen. How might you view the location (building name and room number) of the COMM 1110 class?

[NOTE: If the participant did not actually register for the Public Speaking class at the beginning of this task, ask them to find the location of another class on their schedule.]

Did the participant successfully complete the task?	

Pages visited to complete task:	Time spent per page:

Total pages:	Total time:

Definition of success: The participant is able to point out the location of the COMM 1110 class or if they simulated registering the class, the participant is able to point out the location of any class they've registered. Location may vary, and the participant may see something like the image below.

Task 3.2 Viewing Schedule

You want to see how this class will fit in with the rest of your schedule. Going back to the Athena menu screen, how might you see the weekly schedule of all your classes in the fall for the week of Aug 31, 2020?

Did the participant successfully complete the task?	

Pages visited to complete task:	Time spent per page:

Total pages:	Total time:

Definition of success: The participant is able to arrive at the screen as shown below AND shows the week of Aug 31, 2020. The participant is partially successful if they arrive at this screen. [Note: Actual screen will contain classes, this image has been edited to remove unnecessary information.]

Task 3.3 Dropping a Class

You have decided that you actually don't want to take the Intro to Public Speaking class because it's very late in the day. Starting from the Athena homepage, how might you drop the class from your schedule?

[NOTE: If the participant did not actually register for the Public Speaking class at the beginning of this task, they may simulate dropping another class that is already in their schedule. The participant may Indicate completion of the task by hovering over the Submit changes button instead of clicking on it.]

Did the participant successfully complete the task?	

Pages visited to complete task:	Time spent per page:

Total pages:	Total time:

Definition of success: The participant selected the "Web Drop" option on the class AND either clicking the Submit Changes button or simulate clicking the Submit Changes button by hovering over it if they did not actually register for the COMM 1110 class as shown in the image below. [Note: Actual screen will contain classes, this image has been edited to remove unnecessary information.]

Task 4: Financial Aid

You want to make sure that your cost of attendance will be covered by your financial aid since you intend to take classes in the Fall. Starting from the Athena homepage, how might you view the status of your academic progress for financial aid eligibility for the year 2020-2021?

Did the participant successfully complete the task?	YES/NO

Pages visited to complete task:	Time spent per page:

Total pages:	Total time:

Definition of success: The participant is able to arrive at either one of the screens as shown in the images below.

Task 4.1 Learn more about financial aid

You want more information on applying for financial aid. Starting from the Athena menu screen, how might you find more information about applying for financial aid and see OSFA's application process?

Did the participant successfully complete the task?	YES/NO

Pages visited to complete task:	Time spent per page:

Total pages:	Total time:

Definition of Success: The participant finds the button under Financial Aid that says Financial Aid Application which then takes them to the UGA OSFA page on how to apply for FAFSA, as shown in the image below.

Task 4.2 Accessing Student Account

Now that you've updated yourself on your financial aid status, you want to make sure you know where to make payments for your tuition, along with other fees. Starting from the Athena homepage, how might you access your student account? You may stop once you arrive at the login screen.

Did the participant successfully complete the task?	YES/NO

Pages visited to complete task:	Time spent per page:

Total pages:	Total time:

Definition of success: The participant is able to arrive at the second screen below after clicking the access student account button, as shown in the images below.

First screen: Participant clicks the "Access Student Account" Button
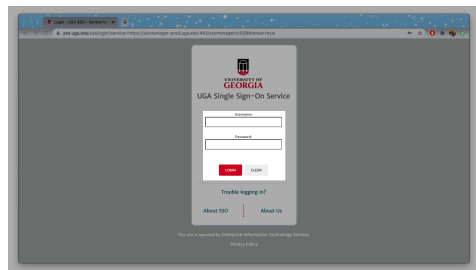
Second Screen: Participant arrives at the login screen for the student account.

Usability Metrics

1) Issue-based Metrics
   a) Severity Ratings: Each of the issue-based metrics (Success Rate and Frequency of Issues) will be observed under a severity rating system to determine issues with the highest priority.
      i) Catastrophic: Something that makes it impossible to complete the task/subsequent tasks such as not being able to log onto Athena. Causes the test to end immediately. In terms of frequency, this refers to issues that occur the most per task and per participant.
      ii) Critical: Failure to complete the task caused by significant error not explainable by user error. Issues that occur at a moderate amount among participants (around 30-50%).
      iii) Minor: Failure due to user error like registering for the wrong class, entering the wrong CRN for Task 3, or clicking on the wrong button. Could be addressed either through a slight layout, wording, graphic or typography change to lessen the chance of user error and improve intuity. Issues that were experienced the least among participants.
   b) Success Rate: How many participants were able to finish each task in full?
      i) Separate participant performance results based on task success and failure.
   c) Issues By Task: What issues do participants encounter during each task?
      i) Separate issues into different categories based on how the function or design of Athena is associated with it.
   d) Frequency of Issues: How often do the issues occur throughout the Study? Per task? Per participant?
      i) Based on what caused participants to make a mistake (defined in the errors section below), determine what tasks lead to the most issues.
         (1) Separate issues based on the task during which it had occurred. Separate issues based on each participant's experience.
2) Performance Metrics
   a) Task Success/Failure: Were participants able to complete the tasks given?
      i) Task Success: This is achieved when the participant has completed every step of the task with few (3) to no minor errors and indicates "done".
      ii) Task Failure: This occurs when the participant takes more than 5 minute, gives up, or has made 4 or more errors. This could also occur when the participant did not complete the task but thought they did.

b) Task Completion Time: How long does a participant take to complete each task?
  i) As the Zoom session will be recorded, the data logger will be recording the time it takes for the participant to complete the tasks.
c) Errors: Did the participant encounter obstacles during the tasks that led them away from completing the task successfully? If so, why did it happen?
  i) Critical Errors: A critical error occurs when an action leads the participant to be unable to complete the task (include when they give up, take longer than 5 minutes, or requires intervention from the interviewer). These errors are not recoverable and result in task failure.
  ii) Minor Errors: A minor error occurs when the participants initiate an action that is different from the intended purpose, but they are able to recover/recorrect themselves. Minor errors may include clicking on (and entering) the wrong tabs/pages in Athena (click the back button to undo the error), entering the wrong CRN, registering for the wrong class.

3) Self-Reported Metrics
  a) Questionnaires/Survey: Participants will be provided a link to the questionnaire to complete before and after the Study.
    i) Likert Scale: Both questionnaires utilize the Likert Scale, which allows participants to rank their level of agreement to the given statements.
    ii) Specific and Open-Ended Questions: The questionnaires also present a series of specific and open-ended questions for participants to articulate their own unique response.

Pre-Test Questionnaire

Year in College: _____

Major: _____

How many credit hours are you currently registered for? _____

How experienced with technology are you?

Not very experienced	1	2	3	4	5	Very experienced

How often do you use Athena?

Not that often	1	2	3	4	5	Very frequently

What device do you usually use to access Athena? _____

When planning your schedule/registering for classes, did you use other websites?

_____

   If yes, what website(s) do you use? Please list them.

   _____

_____
Instructions on how to present this survey to participants: This questionnaire will be in the format of a Google Forms and will be presented as a link for participants to click on at the beginning of the study. Link: https://docs.google.com/forms/d/e/1FAIpQLSevizuvGVyGhUFjfU-jEKxJLIdDOmYKU-Yjlu1K87hztgNHYw/viewform

Post-Test Questionnaire

Athena is easy to access and use.

Strongly Disagree	1	2	3	4	5	Strongly Agree

Athena works well on every device that I use to access it.

Strongly Disagree	1	2	3	4	5	Strongly Agree

Athena is easy to navigate.

Strongly Disagree	1	2	3	4	5	Strongly Agree

Athena is organized in a way that makes sense to me.

Strongly Disagree	1	2	3	4	5	Strongly Agree

Information on Athena is presented in a way that is understandable to me.

Strongly Disagree	1	2	3	4	5	Strongly Agree

When I log into Athena, I know where to find the information I'm looking for.

Strongly Disagree	1	2	3	4	5	Strongly Agree

Registering for classes on Athena is pretty straightforward.

Strongly Disagree	1	2	3	4	5	Strongly Agree

It's easy to look up and research classes on Athena.

Strongly Disagree	1	2	3	4	5	Strongly Agree

Any mistakes I make while navigating Athena are easily undoable.

Strongly Disagree	1	2	3	4	5	Strongly Agree

Athena keeps me well-informed about my academic status and financial aid.

Strongly Disagree	1	2	3	4	5	Strongly Agree

What do you like most about Athena?

What do you like least about Athena?

How was your experience checking on holds and viewing your personal information on Athena?

How was your experience registering for classes on Athena?

If you use other websites to plan your schedule, what do you use and why do you use them as opposed to Athena?

How was your experience checking on your financial aid status in Athena?

What parts of Athena would you like changed?

What parts of Athena would you like to keep unchanged?

_____

Instructions on how to present this survey to participants: This questionnaire will be in the format of a Google Forms and will be continued from the Pre-test Questionnaire in which participants can return to at the conclusion of the Study.

Sources

Consent Form

Inspiration taken from:

"Consent Form." 2019, PDF file, http://csweb.cs.uga.edu/~mec/IRB_Consent_Form_2019.pdf.

"Documents, Overview, Office of Research, University of Georgia." Documents, University of Georgia Research, 16 Apr. 2020, https://research.uga.edu/documents/#hso

"Sample Informed Consent Form For a Usability Test." ELearning Commons, https://uga.view.usg.edu/d2l/le/content/2037414/viewContent/29944760/View

Travis, David. "Anatomy of a User Research Consent Form." UserFocus, 2 July 2018, www.userfocus.co.uk/articles/anatomy-of-a-consent-form.html.