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Subject: Test Plan- Pines Project- Website Usability Testing

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Purpose

The usability test of the Georgia PINES online catalog will be used to assess how easily participants are able to navigate the Georgia PINES website to find what they are looking for.

PINES is focused on creating a usable online catalog for all Georgia residents, library members, and visitors. For the usability test, our main audience are typical college students, ages 18-24, who are unfamiliar with the PINES library system.

In 2019, the PINES Library System conducted an accessibility study of their online catalog. They updated their website based on the study. This usability test will evaluate if the updated catalog is usable for their college-aged clients.

This test plan includes:

- Problem Statement and Test Objectives
- Methodology
- User Profile
- Participant Incentives
- Screeners
- Scenarios
- Evaluation Methods
- Test Environment and Equipment
- Deliverables
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 - Appendix B: Moderator's Script
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Problem Statement and Test Objectives

Problem Statement

GA PINES would like to evaluate whether or not the updates from last year's accessibility study has made their catalog website usable for college-aged users. The usability test of the website will highlight any usability strengths and weaknesses present.

Test Objectives

These questions were identified based on our sponsor's example tasks for the online catalog:

- *General Online Use:*
 - *Understanding the overall objective of the online catalog:* Is it clear what the catalog is for?
 - *Nearest library location:* Can users determine which library is their closest library?
 - *Ability to login:* Can users login to their account?
- *Specific Product Search:*
 - *Available book:* Does the library a user has selected have the specific book (author and title) they are looking for?
 - *Products based on specific topic:* Does the selected library have all the products users are looking for based on a specific topic?
- *Library Account Navigation:*
 - *Previously checked-out books:* Are users able to see what books they have checked out in the past?
 - *Item renewal:* Can users renew their books?
 - *Items on hold:* Can users see their books that are on hold?

Methodology

This section outlines how the test will be performed for each test participant. By following this prescribed methodology, we ensure that we can obtain accurate and consistent usability findings. We will use a consistent procedure, schedule, and participant profile between each test.

Test Procedure

Each test session will begin with an introduction and overview briefing for the participant. This briefing will introduce the various scenarios to the participant and explain the tasks comprising them. The participant will then be asked to complete each scenario task under the supervision of the moderator, while the logger and note taker record the results of the test. The participant will also be asked to complete a post-test SUS evaluation administered through the Morae recorder. Based on this evaluation, the participant will be interviewed about any "Strongly Agree" questionnaire responses, or about their general thoughts on the site if they do not have

any “Strongly Agree” responses. Finally, the participant will be thanked for their time and given their test incentive.

Number of Participants

We plan to test a total of five participants. To ensure an adequate number of participants, we plan to recruit seven users, one of whom will be the backup participant. The first participant will be tested in the pilot test, the results of which will not be included in the final results of the study.

Length of Test Session

Each test session will take a total of 50 minutes, scheduled as follows:

- Welcome/introduction briefing - 5 minutes
- Task scenarios - 5 minutes per task (35 minutes total)
- Post-test questionnaire and interview - 10 minutes

User Profiles

Our testing will focus on college students, aged 18-24, who have no previous experience with the GA PINES website.

Participant Incentives

The participant incentive will be one small box of chocolates.

Screeners

While recruiting participants, students will be asked if they have visited a library catalog website. If there are students who have had experience with such a website, they will not be tested as they do not match our user profile.

Scenarios/Tasks

Scenario 1: Logging in to a library account

You are a college student who needs some books for your next research project due after Spring Break. This paper is worth half your grade, so you want to make sure you reserve the best books early. You know there is a Pines Library close to where you live, so you visit the website (<https://gapines.org/eg/opac/home>). You know you have an account (Card Number: 21012002885598; Password: mercer1685), but since you have been off to college, you want to make sure it works so you can search and hold your books.

Log into your account, using the provided card number and password.

Scenario 2: Finding checked out books

Now that you are into your account, you want to go ahead and see if you have any books that you checked out during the holiday break. That way, if it is a book you need for your project, you can renew it.

Find the book(s) you have currently checked out.

Scenario 3: Renewing checked-out books

You can renew the book one more time. Perfect timing!

Renew that checked-out book.

Scenario 4: Finding the Closest Library

Consider Macon as your hometown, since it is near Mercer. Find a library that is within 5 miles of Macon so that you can go look for books in-person.

Scenario 5: Searching product by author and title

You found a book for your project. Search for the book titled *Drake: for God, queen, and plunder* by Wade G. Dudley.

Scenario 6: Searching for all books based on a specific topic

You need some books about the Civil War for this project.

Look for all books based on the subject: 'Civil War'. Use the library found previously in scenario 4.

Scenario 7: Placing a book on hold

You would like to place the book, titled *The History and battlefields of the Civil War* by John Bowen, on hold so you can pick it up when it is most convenient for you.

Place this book on hold. Leave the pickup location and phone number (if selected) on default.

Team Checklists ¹

Evaluation Methods

We will use the following metrics to evaluate the usability of the website:

- Usability testing metrics:
 - Completion status of task (successful or unsuccessful)
 - Time spent on task
 - Number of recoveries from errors
- SUS questionnaire score (end of usability test)
- Interview
 - Pre-test questionnaire (based on user expectations)
 - Focus on ‘Strongly Agree’ or ‘Strongly Disagree’ rating in questionnaires
 - If not applicable, ask participant about general thoughts on the website and what stood out to them

The three usability metrics recorded during testing will serve as a baseline measure of how efficiently the user can use the website. The SUS evaluation will be used to determine any “Strongly Agree” or “Strongly Disagree” responses that will be discussed during the post-test interview. There is a five-point scale (1-Strongly Disagree, 5-Strongly Agree) where the user will pick a rating. If the participant does not answer with ‘Strongly Agree’ or ‘Strongly Disagree’ for any of the choices, the participant will be asked about their general thoughts on the website and what stood out to them.

Test Environment & Equipment

Each test will be conducted in the Usability Lab in the SEB building. The logger and note-taker will use the equipment in the observation room of the lab to monitor the test participants, take notes, and log events that occur during testing. The moderator will be sitting in the testing room with test participants to prompt them to think out loud and ensure that they stay on task.

To conduct the tests, we will need the following equipment:

- A copy of the moderator script
- Copies of the questionnaires
- A copy of the test plan
- Access to the usability lab
- Incentives

¹ See Appendix A

Deliverables

The deliverables that will be provided at the end of this project will include:

- Test plan
- PowerPoint presentation on test findings.

Appendix A - Team Checklists

Moderator Checklist

Before participant arrives

- Remove holds on checked out books in each scenario
- Make sure questionnaires, consent forms, incentives, and the moderator's script are ready
- Make sure pens are available for the questionnaires and consent form
- Bring stapler and staples
- Print seven consent forms
- Print seven questionnaires

Welcome

- Introduce self and thank the participant for coming

Consent form

- Explain test purpose
- Go over consent form, allowed time to read and sign
- Ask for questions and concerns

Instructions

- Explain usability testing process
- Review how think-out-loud process works, with examples

Post-test questionnaire and interview

- Administer post-test questionnaire
- Ask participant if they have any further questions or concerns
- Thank participant for their time

Note-Taker Checklist

Before each test

- Prepare note taking materials
- Record the starting time of the test, date, participant name, and scenario at top of page

After each test

- Record the ending time of the test at bottom of page
- Add time stamps next to each noted event based on Morae log file
- Record participant responses to post-test interview (if applicable)

- **Maintain notes on Google Drive**

Logger Checklist

Before each test

- Turn on logging computer
- Review logging codes
- Enter new test information into logging software
- Check headphones and microphones for logger and team
- Test logging software
- Check logger's monitor
- Change monitor's views (if necessary)

After each participant

- Print log file
- Copy log file for team members
- Distribute copies to team members
- Place original in participant's folder
- Upload log file to team folder on Google Drive
- Set up logging software for next participant (if any)

At end of day

- Back up logging software data files
- Set logging software for next day (if necessary)
- Turn off computer
- Turn off printer
- Turn off copier

Appendix B - Moderator's Script

This script must be read by the moderator exactly as written to each participant. The instructions in square brackets are notes to the moderator. This script was adapted from (Barnum, 2011, pp. 193-195).

Introduction

Hello! Thank you for coming in today.

My name is Cathy Hu and I am here to test the usability of Georgia PINES' library catalog website. For your information, I am reading from a script to ensure I say the exact same thing to each participant and to ensure that I don't forget anything.

Today, we will be looking at the Georgia PINES library catalog website. Your participation will help me understand what changes should be made to develop an appealing, usable website.

Video Recording Permission

This session will be recorded. The reason for recording the session is so that I can use it to answer questions I may have after the test. Here is a consent form (see Appendix B) giving me permission to record your use of the site. Please read it over. If you are comfortable with signing this form, please do so. If you have any questions, please feel free to ask.

[Give the participant the permission form to review.]

Introduction to Testing

Before we begin, I will explain how this test will work.

I will ask you to view the Georgia PINES library catalog website and give you some tasks to perform. I really appreciate your feedback about your experience, so I would like you to tell me what you are doing and why you are doing it during each task.

Please think aloud as you navigate the site. You may want to say things like, "I'm clicking this because..." or "I don't like this because..."

Let's practice this concept a little. I would like you to walk me through how you would refill a stapler, such as starting with "I will begin by taking off the top of the stapler".

Additionally, this test is meant to evaluate the website, not your abilities. You do not need to know anything about the website beforehand.

Do you have any questions before we begin?

[Move to the testing room.]

Pre-Test Questionnaire

To begin, I'd like you to fill out this questionnaire (see Appendix C) to help me understand your expectations for a library catalog website. As you complete it, please tell me what you are writing down and why you are writing these answers.

[After the questionnaire is completed:] Thank you for your feedback.

During Testing

I have several tasks for you to work through. Remember, this is not a test of you; it is a test of the website, and I'm very interested in your reactions about it. Please remember to think out loud and please let me know when you are done with the task.

Scenario 1: Logging in to a library account

You are a college student who needs some books for your next research project due after Spring Break. You decide to visit the Pines Library website (<https://gapines.org/eg/opac/home>) to look for some books.

Log into your account, using the provided card number and password. (Card Number: 21012002885598; Password: mercer1685)

Scenario 2: Finding checked out books

Now that you are into your account, you want to go ahead and see if you have any books that you checked out during the holiday break. That way, if it is a book you need for your project, you can renew it.

Find the book(s) you have currently checked out.

Scenario 3: Renewing checked-out books

You can renew the book one more time. Perfect timing!

Renew that checked-out book.

Scenario 4: Finding the Closest Library

Consider Macon as your hometown, since it is near Mercer. Find a library that is within 5 miles of Macon so that you can go look for books in-person.

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Scenario 7: Placing a book on hold

You would like to place the book, titled *The History and battlefields of the Civil War* by John Bowen, on hold so you can pick it up when it is most convenient for you.

Place this book on hold. Leave the pickup location and phone number (if selected) on default.

Post-Test Questionnaire and Interview

Thank you for your feedback. Please complete this post-test questionnaire. This will help me understand your experience with this website.

Interview

[If participant answered 'Strongly Agree/Strongly Disagree' on any of the choices:] I noticed you answered 'Strongly Agree/Strongly Disagree' to the following choices [list choices]. Would you mind elaborating on why you chose this response?

[If participant does not answer 'Strongly Agree/Strongly Disagree' on any of the choices:] Would you mind sharing your general thoughts on the website and what stood out to you?

After Testing

Thank you for participating in this usability test! Please take some chocolates and I hope you have a great day.

Appendix C - Consent Form

The following consent form is adapted from (Barnum, 2011, p. 171).

I hereby give my permission to be videotaped as part of my participation in the Georgia PINES usability study at Mercer University.

I understand and consent to the use and release of the video. I further understand that the video recording and any highlights extracted from it may be used for review. Representative video excerpts may also be used within presentations to the client, at professional meetings, and as part of research.

I give up any rights to the video recording and understand that the recording may be used for purposes described in this release form without further permission.

I understand that if for any reason I do not want to continue I can leave at any time during this recording session. I can also deny consent at any time.

Signature: _____ Date: _____

Appendix D - Pre-Test Questionnaire

Before the test begins, each participant will be asked these questions.

1. What kind of pages or information would you expect to see in a library catalog website?
2. What would be your top 3 reasons for visiting a library catalog website?
 - a.
 - b.
 - c.
3. What features are most beneficial to you in a library catalog website?

Appendix E - SUS Evaluation

System Usability Scale

Instructions: For each of the following statements, mark one box that best describes your reactions to the website *today*.

		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this website frequently.	<input type="checkbox"/>				
2.	I found this website unnecessarily complex.	<input type="checkbox"/>				
3.	I thought this website was easy to use.	<input type="checkbox"/>				
4.	I think that I would need assistance to be able to use this website.	<input type="checkbox"/>				
5.	I found the various functions in this website were well integrated.	<input type="checkbox"/>				
6.	I thought there was too much inconsistency in this website.	<input type="checkbox"/>				
7.	I would imagine that most people would learn to use this website very quickly.	<input type="checkbox"/>				
8.	I found this website very cumbersome/awkward to use.	<input type="checkbox"/>				
9.	I felt very confident using this website.	<input type="checkbox"/>				
10.	I needed to learn a lot of things before I could get going with this website.	<input type="checkbox"/>				