

To: Dr. Brewer

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Subject: Pines Project Test Plan

Date: February 3, 2020

PINES Test Plan

Problem Statement and Test Objectives

This usability test of the Georgia PINES Android application will provide qualitative and quantitative data addressing our client's interest in understanding users' experience while using the Android application. Our target age group ranges from 16 to 25 years of age. Tasks for testing the PINES Android app include:

- The general feeling/layout of the application: How does the user feel about the general layout of the application?
- Usage:
 - Basic search: Is it easy to use?
 - Advanced search: Can users accomplish their goals on the advanced search screen on the catalog?
 - Entering personal information: Does the website require reasonable and suitable information for users? Do users understand all information requirements?
- Language: Do users understand all the terminology on the app? Are there any mistakes or misunderstandings?
- Navigation: Can users find the most efficient navigation when they use the application? Are there too many steps to do simple tasks?
- Satisfaction: Which aspects do users like and which aspects do they dislike? What else would the user like to do through the catalog?

These questions were devised using information supplied by our client. This usability study will be designed to allow us to obtain quantitative and qualitative data. The focus of the study will be task-oriented and directed toward how the user subjectively responds to the issues listed above. Participants will be given a pre-test questionnaire to get information about their expectations, followed by scenarios that direct them to perform specific tasks. Post-task reaction cards after each scenario, as well as a post-test questionnaire, are designed to obtain detailed and specific feedback about the different features of the app.

User Profiles

The ideal participant will be:

- Aged 15 - 26
- Someone who hasn't used the application at all prior to testing
- Familiar with how to operate an Android smartphone

Methodology and Tasks/Scenarios

This section describes the testing methodology and scenarios that we will use.

Number of Participants

We plan to test a total of five participants: two from ages 15 to 17; two from ages 18 to 22; and one from ages 23 to 26. To ensure an adequate number of participants, we plan to recruit six users based on our screener which will be administered upon identification of an ideal candidate ; one of which is a pilot participant.

Participation Incentives

With most of the participants being school aged, we decided to thank the participants in our study by providing them with a sticky note set and organizer. (Mega Stationers Colored Sticky Note Set and Organizer, Square Notes and Index Flags in A Compact Little Box for Home Office School Use, Great Teacher's Gift). Small snacks and small water bottles may also be available for the participants during the tests.

Alternative: BcPowr Pack of 3 Multi-function Sticky Notes Flag Set Kraft Paper Notebook With Index Tabs Page Flags Neon Color Notepad With Pen in Holder and Sticky Notes, Page Marker Colored Index Tabs Flags

Tueascallk 10 Packs Combination Sticky Notes, Pop-up Self-Adhesive Notes, 3.2" x 4.1", 200 Sheets/Pack

Candy bars/Waterz

Length of Sessions

The total length of each session will be ~50 minutes including:

- Welcome and pre-test questionnaire: ~7 minutes
- Task scenarios: ~35 minutes
- Post-test questionnaire: ~5 minutes

The estimated time for each scenario is noted below.

Test Procedure

The test will begin with an overview briefing, followed by the scenarios described below, post-task reaction cards, and a post-test questionnaire. Participants must use only any resources that are not available on the PINES app.

Overview/Briefing (7 minutes)

1. Introduction to the team
2. Explanation of what we're going to have them do + making sure they still agree to test requirements
3. Pretest questionnaire
4. Instruction and practice on think aloud protocol

Scenario 1 (10 minutes)

Scenario

You're a member of your school's debate team, and you're going on a week long trip to nationals this week. You'd like to find a good tearjerker to read on the way there, and while you're at the hotel room, you'd like to get pulled into a science fiction series.

Tasks

1. Log into the PINES app
2. Find the name of your closest library
3. Find a YA science fiction series published after 2013 using the search functions
4. Figure out if your local library has the books
5. Figure out how to pick up the books
6. Find out if your local library has *The Fault in Our Stars* by John Greene
7. Place it on hold if it does: if it doesn't, request it from another library.
8. Find *The Secret Fire* by CJ Daugherty, and see how long it will take to get it.
9. Check to see if you have any fees that would prevent you from checking out the book.

Scenario 2 (10 minutes)

Scenario

You've just come back from a crystal show with your friend who's a huge crystal enthusiast, and you're really interested in the formation of crystals, but you don't really know where to start on your educational journey. You want to find some beginner information on crystals and how they're formed.

Tasks

1. See if there's a CD on crystal formation that you can watch (at your library)
2. If there is a CD on crystal formation, find out how to acquire it
3. If there isn't a CD on crystal formation, find a book
4. Place a book on geology printed after 2005 on hold
5. Remove the book on geology from hold

6. Create a list of 5 materials (CD,book,audiobook,cassette etc...) that you'd like to check out later relating to the subject, but don't have the time to look over now.

Scenario 3 (10 minutes)

Scenario

You're doing a history project on none other than Alexander Hamilton, and while the Broadway hit is catchy, and (mostly) accurate, you have a feeling that your history professor won't accept the lyrics to Cabinet Battle #1 as a reputable source. You'd like to find a resource that talks about Alexander Hamilton's life after the war for your project.

Task

1. Find a nonfiction book on Alexander Hamilton
2. Find a fictional book on Alexander Hamilton
3. Find a book not necessarily about Alexander Hamilton, but one in which he plays a key role (think the early phases of the constitution)

Closing (10 minutes)

1. Let participant know this was the end of testing
2. Interview participant
3. Use reaction cards

Evaluation Methods

We will acquire our data through observing our participants while they undergo testing, which will give us both quantitative data such as how long users took to complete each task when compared with the estimate, and qualitative data including the general user experience and how they personally interacted with the application. We also will give our participants a pre and post-test questionnaire in order to gauge how familiar they were with the PINES Library app before and after, and their level of comfort using the app to undergo different tasks. We will also be using reaction cards to gain insight into a user's experience and get valuable qualitative data that helps us identify points of frustration, and also points that the user felt that the process went by very smoothly.

Testing Equipment and Environment

The test will be conducted in a full-scale usability lab at Mercer University. Logging and recording of sessions will be done using Morae, with backup recordings stored on a USB flash drive. We will be using a Samsung Galaxy S7 with the PINES (Georgia) app installed. The session will be recorded through the cameras in the usability lab

Deliverables

The final report that will be given to our client will be the findings and results that were found from the usability testing. The report will be a formal oral presentation/meeting and an electronic document (Microsoft PowerPoint). The presentation will be delivered on February 26th. The electronic document will be delivered on March 6th.

Appendix A: Participant screening questionnaire

1. How often do you use online library sources?
A) Never B) A few times a year C) A few times a month D) Multiple times a week
2. How often do you use the mobile app vs desktop site for websites?
A) Never B) Rarely C) Sometimes D) Almost always
3. How old are you?
A) Highschool aged (15-17) B) College aged (18-22) C) Post college aged (23-26) D) None of the above
4. How often do you use a smartphone?
A) Never B) Rarely C) Sometimes D) Almost always

Appendix B: Consent forms (minor and adult)

Consent Form (Minor)

I agree to allow my child to participate in the usability study conducted by Mercer University.

I understand that participation in this usability study is voluntary and I agree to immediately raise any concerns or areas of discomfort my child or I might have with the study administrator.

Please sign below to indicate that you have read and you understand the information on this form and that any questions you might have about the session have been answered.

Date: _____

Child's name: _____

Please print your name: _____

Please sign your name: _____

Thank you!

We appreciate your participation.

Consent Form (Adult)

I agree to participate in the study conducted by Mercer University.

I understand that participation in this usability study is voluntary and I agree to immediately raise any concerns or areas of discomfort I might have with the study administrator.

Please sign below to indicate that you have read and you understand the information on this form and that any questions you might have about the session have been answered.

Date: _____

Please print your name: _____

Please sign your name: _____

Thank you!

We appreciate your participation.

Appendix C: Pre-test Questionnaire

1. How often do you use Georgia Public Libraries?

- A) Never B) A few times a year C) A few times a month D) Multiple times a week

2. If you have used Georgia PINES website or app, what did you use it for?

- A) Finding a book B) Finding library location C) Extending return date of material
D) Other: _____

Appendix D: Post-test questionnaire

1. Now that you know about Georgia PINES, do you see yourself using this app in the future?

A) Yes B) No

2. Would you recommend this to a friend or family member?

A) Yes B) No

3. Any additional comments:

Appendix E: Team Checklist

Moderator ' s Checklist

Before participant arrives

- Make sure product is loaded properly and ready for first scenario
- Make sure phone and microphone are properly positioned
- Make sure pen is on the desk for questionnaire completion

Welcome

- Introduce yourself, thank participant for having an interest in participating
- Offer refreshment
- Escort participant to evaluation room
- Ask participant to sit at the desk
- Sit beside the participant

Consent form, pre-test questionnaire, instructions

- Show participant the location of cameras, phone, microphone
- Explain the purpose of the test
- Go over consent form, allow time to read and sign; if this has been done already, ask participant if he/she is comfortable with being recorded
- Explain that there are observers who are very interested in learning from the participant about his/her experience
- Ask for questions, concerns
- Give pre-test questionnaire

Instructions

- Explain the process of using scenarios, one at a time, while participant thinks out loud
- Review how think-out-loud process works, with examples
- Demonstrate how to use the phone to call the help desk or to indicate completion of a scenario
- Explain that after each scenario, there will be a quick questionnaire to complete, then the next scenario

After each scenario, post-task questionnaire

- Offer plenty of reassurance, especially when tasks prove difficult
- Give feedback on the quality of the think-out-loud procedure; if necessary, encourage more feedback from participant by reviewing the process again, with examples
- Ask participant to clarify any thoughts or actions as requested by team members
- Give post-task questionnaire to participant
- Set up product at starting point for next scenario, if needed

After completion, post-test questionnaire

- Give post-test questionnaire (or whatever feedback mechanisms are being used)
- If appropriate, introduce participant to team; generously thank for experience
- Provide stipend for participation (or direct participant to office for payment)

Logger's Checklist

Before the test

- Turn on logging computer
- Review logging codes in logging software
- Enter new test information into logging software
- Check headphones and microphones for logger and team
- Test logging software
- Check logger's monitor
- Change monitor views as necessary
- Do a test print from logging software; troubleshoot any problems:
- Check cable from logging computer to printer
- Check paper and ink in printer
- Do a test copy in copier; troubleshoot any problems:
- Check paper in copier
- Check toner cartridge

After each participant

- Print log file
- Copy log file for team members
- Distribute copies to team members
- Place original in participant's folder
- 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 appropriate)
- Turn off computer
- Turn off printer
- Turn off copier

Technician's Checklist**Before each test participant arrives**

- Turn on equipment
- Adjust cameras to proper settings for recording
- Select picture-in-picture setting for recording
- Check sound coming into and out of the control room
- Label DVD for the session
- Load DVD

During each test session

- Synchronize starting times with the logger/data recorder
- Adjust audio in control room and headsets as needed
- Change picture-in-picture settings as needed

After the test participant leaves

- Finalize DVD recording
- Eject DVD and put in labeled case
- Prepare for next participant (if appropriate)

- Turn off equipment (at end of last session)

Appendix F: Test Accounts

These accounts have been set up with some books that are pre-checked out on them and some bills added to them; they are “live” accounts.

Test Account 1: Sandra Smith

Barcode: 21012002885648

Password: mercer1771

Test Account 2: George Jones

Barcode: 21012002885598

Password: mercer1685

Test Account 3: Tamika Terrill

Barcode: 21012002885580

Password: mercer5510

Test Account 4: Michael Morgan

Barcode: 21012002788305

Password: mercer4540

Test Account 5: Velma Volkert

Barcode: 21012002082675

Password: mercer4839