GVSU Libraries Website Usability Testing

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Document Overview

This document describes a plan for conducting regular usability tests of the GVSU Libraries' website through qualitative, task-based testing to identify areas for improvement in the website's design, navigation, labeling, and structure in order to improve user efficiency, productivity, and satisfaction. The University Libraries will use the results of the usability tests to improve the user-interface of the Library website.

The usability test objective is to determine design inconsistencies and usability problems in the user interface and content areas. Potential sources of error may include:

- Navigation errors: failure to locate functions, excessive keystrokes to complete a function, failure to follow recommended screen flow.
- Presentation errors: failure to locate and properly act upon desired information in screens, selection errors due to labeling ambiguities.

Users of the website come from the GVSU community, including students, faculty, and staff. Testing will occur monthly in an office in Zumberge Library, with an additional observation room connected by audio feed and screen sharing software.

Executive Summary

- Three (3) GVSU Libraries' website users will participate each month.
- Participants will be asked to complete specific tasks on the Libraries' website while "thinking aloud."
- How each participant responds, whether the complete they task, and whether they commit any errors will be noted.
- Session screens and audio will be fed via screen-sharing software to an observation room, as well as recorded.
- Usability problems will be noted by the facilitator and observers from watching participants interact with the website while trying to complete the given tasks.
- A list of the most serious usability problems will be compiled from the results and addressed before the next test.

Methodology

One morning a month, three thirty-minute usability tests will be conducted, each with a single test participant. Test participants and facilitator will meet in an office in Zumberge Library equipped with an Internet-connected computer and Web browser. Test participants will be given a brief introduction to the usability test and asked to sign a Informed Consent Form before proceeding. Camtasia screen recording software will record the participant's activity on the screen as well as the audio from both the participant and the facilitator. Data gathered from observation will be limited to areas of the website that presented difficulties to the user(s).

Participants

We will recruit three (3) new participants each month for our tests, drawing from the main audiences of our website: GVSU students, faculty, and staff. No specific skills or knowledge are required, as the website should accommodate both novice and expert users. Participants will be recruited from the GVSU community using advertisements on the library website, library blog, signs at the library service counters, and other GVSU marketing channels.

The participants will attempt to complete a set of representative task scenarios on the website in as efficient and timely a manner as possible, and to provide feedback regarding the usability and acceptability of the user interface. The participants will be directed to provide honest opinions regarding the usability of the website. Participants will be compensated with a GVSU t-shirt for their time.

Training

The participants will receive an overview of the usability test procedure, equipment and software.

Procedure

A full script of the test can be found in Appendix A.

Participants will take part in the usability test within Zumberge Library on Grand Valley State University's Allendale campus or in a room on the Pew Campus. A computer with the Library's website and supporting software will be used in a typical office environment. The participant's interaction with the Web site will be monitored by the facilitator seated in the same office. Observers will monitor the sessions in observation room, connected by Camtasia screen recording software, allowing them to hear the audio of the testing room and see what the participant is doing on the screen. The audio and screen activity will be recorded.

The facilitator will brief the participant on the website and instruct the participant that the website is being evaluated, not the participant. Participants will sign an informed consent that acknowledges: the participation is voluntary, that participation can cease at any time, and that the

session screen and audio will be recorded but their privacy of identification will be safeguarded. The facilitator will ask the participant if they have any questions.

The facilitator will then ask a few questions of the participant to ascertain the participant's University affiliation and computer savvyness. (Questions are available in Appendix A.) At the start of each task, the facilitator will give a printed copy of the task to the participant and then read aloud the task description. The participant will then begin the task.

The facilitator will instruct the participant to 'think aloud' so that a verbal record exists of his or her interaction with the website. The facilitator and observers in the observation room will observe and note user behavior, user comments, and system actions.

After all task scenarios are attempted, the facilitator or observers will ask a few follow-up questions based on the task scenarios. Each test should take around 1 hour to complete.

Roles

The roles involved in the usability test are as follows. An individual may play multiple roles.

- *Trainer*
    - Provide training overview prior to usability testing
- *Facilitator*
    - Provides overview of study to participants
    - Defines usability and purpose of usability testing to participants
    - Conducts test by supplying task-based scenarios to participants
    - Assists in observer debriefing session
    - Responds to participant's requests for assistance
- *Test Observers*
    - Records participant's actions and comments
    - Assists the facilitator in identifying problems, concerns, coding bugs, and procedural errors
    - Serve as note takers.
- *Test Participants*

Ethics

All persons involved with the usability test are required to adhere to the following ethical guidelines:

- The performance of any test participant must not be individually attributable. Individual participant's name should not be used in reference outside the testing session.
- A description of the participant's performance should not be reported to anyone outside of the usability testing team.

Data Security

Data collected on paper will be stored securely in a locked cabinet inside a locked office in Zumberge Library. Recorded test sessions will be saved on a hard drive that will also be kept in the locked cabinet. No information identifying the participants will be included in the recorded sessions.

Usability Tasks

The usability tasks will be derived from common University Libraries' website usage scenarios. Due to the range and extent of functionality provided in the website, and the short time for which each participant will be available, the tasks will be the most common website functions. Tasks will be identical for all users for a given month, unless circumstances arise to make retesting a particular function unnecessary. (For instance, the first participant uncovers serious usability problems with a particular function and both the reason(s) for and solution to the problem are obvious.)

Because the testing will be ongoing, will change its area of focus each month to help test all aspects of the website, and will respond to changes made to the website based on previous tests, a comprehensive list of tasks and scenarios cannot be presented in advance.

Reporting Results

Immediately following the tests, the facilitator will meet with the observers to discuss the results of the tests. A list of the four or five most serious usability problems observed during the tests will be compiled, and the facilitator and observers will discuss how to solve these issues. The next time usability tests are run, tasks specific to these problems will be reused to see if the usability problems have been addressed. No formal report will be compiled after each test, although statistics from the tests as well as observations will be kept for possible research papers/ presentations on the impact of usability testing on library website usage.

HRRC Exemption: 101(b)2

This research protocol involves only the use of informal, interview-style procedures that carry risk to the participants no greater than normal everyday activities. In addition, screen and audio recordings of the participants will be saved without personally identifying metadata, and will be deleted one year after the test. In the event that any publications arise out of this research, no information will be used that could identify any of the test participants.

Appendix A: Usability Test Script

The following script is adapted from Krug, Steve. (2010). *Rocket Surgery Made Easy: The Do-It-Yourself Guide to Finding and Fixing Usability Problems*. Berkeley, CA: New Riders. pp. 147-152.

Hi, PARTICIPANT NAME. My name is FACILITATOR NAME, and I'm going to be walking you through this session today.

Before we begin, I have some information for you, and I'm going to read it to make sure that I cover everything.

We asked you here today to help us test the GVSU Libraries website to make sure that everything works as we intended. The session should take about thirty minutes.

The first thing I want to make clear is that we're testing the *website*, not you. You can't do anything wrong here. In fact, this is probably the one place today where you don't have to worry about making mistakes.

As you use the site, I'm going to ask you as much as possible to think out loud: to say what you're thinking. This will be a big help to us.

Also, please don't worry that you're going to hurt our feelings. We're doing this to improve the site for all of our users, so we need to hear your honest reactions.

If you have any questions as we go along, just ask them. I may not be able to answer them right away, since we're interested in how people do when they don't have someone sitting next to them to help. But if you still have questions when we're done, I'll try to answer them then. If you need to take a break at any point, just let me know.

With your permission, we're going to record what happens on the screen and our conversation. The recording will only be used to help us figure out how to improve the site, and it won't be seen by anyone except the people working on this project. And it helps me because I don't have to take as many notes.

Also, there are a few people from the University Libraries observing this session in another room. (They can't see us, just the screen.)

If you would, I'm going to ask you to sign a consent form for us. It says that we have your permission to record you and that the recording will only be seen by the people working on the project.

[Give Informed Consent Form (Appendix A) and a pen.]

Do you have any questions so far?

Before we look at the site, I'd like to ask you a few quick questions.

What is your University affiliation? What is your major/department?

Roughly how many hours a week would you say you spend using the Internet, including Web browsing and email, at work, at school, and at home?

And what's the split between email and browsing—just a rough percentage?

What kinds of sites do you use on the Web?

Do you see the Web as essential to your student/staff/faculty work here at GVSU?

Thank you, that's great. We're done with the questions, and we can start looking at things.

[Open GVSU Libraries homepage in Web browser]

Now I'm going to ask you to try doing some specific tasks. I'm going to read each one out loud and give you a printed copy.

And again, as much as possible, it will help us if you can try to think out loud as you go along.

[Hand the participant a scenario, and read it aloud. Allow the participant to proceed until the task is complete or the participant becomes frustrated. Repeat for each task or until time runs out.]

If you'll excuse me for a minute, I'd like to see if the people in the observation room have any follow-up questions they'd like me to ask you.

[Call observation room and ask the participant any questions on follow-up.]

Do you have any questions for me, now that we're done?