

Evaluation 4: Usability Test Plan

Application: Keweenaw Time Traveler

Team #4: Konnected Keweenaw

Grad #7: Abheek Srivastava

Table of Contents

1. Introduction.....	2
2. Application Description	2
3. Test Schedule	2
4. Test Scenario	3
Scenario 1: My First Story Search	3
Scenario 2: I Can Find My Story	4
Scenario 3: I Am On The Map	5
Scenario 4: Let’s Get Lost In Exploration	6
Appendix A.....	7
Appendix B.....	8
Appendix C.....	9
Appendix D.....	10

1. Introduction

This document provides a detailed usability test plan for the application called *Keweenaw TIME TRAVELLER* developed by undergraduate student Team 4 (Konnected Keweenaw). The team has improved and enhanced the existing Keweenaw Time Traveler Story Query Tool. The document first describes the application briefly. Then it outlines the usability test events such as instructions, questionnaires, consent form, test scenarios and bug report.

2. Application Description

Keweenaw Time Traveler is a web application which is designed to be accessed from desktop or tab. The primary focus of this project is to enhance the existing story querying tool. The idea behind the application is to bring user submitted history to the public in a structured way. This tool will allow users to filter the stories into themes and display them interactively on the map.

3. Test Schedule

The testing location is library room 236. There will be 3 tests taking place on April 17th and 19th, 2019 from 11 a.m. to 2 p.m., totaling in 6 usability tests. Each test will take up to 1 hour. View below for the breakdown of what to expect during that hour.

Pre-Test & Set-up **10 minutes**

Before starting the usability testing, the goals and the objectives of the application will be explained. Then the experimenter will provide written test descriptions and the task lists that will be carried out by the usability testers. The experimenter will ensure that there will be no risk using this application. The experimenter will allow for the questions and then pass out the consent form. Once the consent form is signed, the participant will begin answering the pre-test questions.

Test Scenario 1 **10 minutes**

Test Scenario 2 **10 minutes**

Test Scenario 3 **10 minutes**

Test Scenario 4 **10 minutes**

Post-Test **10 minutes**

The experimenter will pass out written post-test questions that ask about overall evaluation of the application.

4. Test Scenario

There will be four scenarios - first three will be very basic test scenarios which will help the usability testers to understand all the features of searching tools. Final test scenario is the main theme of this project. It will help to understand whether the usability testers are getting lost in exploration and the developed features are helping to achieve the goal.

Scenario 1: My First Story Search

Test Goals

- To check if the usability testers can use the search tool of the application
- To check if the usability testers can search story using search tool

Scenario Description

The usability testers will be asked to start the Keweenaw Time Traveler Application. They will be requested to open Search tool and click the Stories tab. They will be asked to type a keyword and make a search and navigate through the list of stories which will be displayed in the result section. They will be asked to note down if the list of stories doesn't match the keyword they typed and any bad experience they encountered while navigating through the list of stories.

Task List

1. Open the Keweenaw Time Traveler Application
2. Go to Explore App
3. Select Stories tab
4. Type the story keyword in the search bar
5. Click the search button
6. Navigate through some of the story from the list of stories
7. Observe the behavior of map while clicking each story
8. Go through the associated story and the medias attached to it
9. Record the usability concerns and any inconsistencies occurred

Quantitative Measurement

1. Time taken by the usability testers to understand the searching and navigation features
2. Time taken by usability testers to understand the behavior of map
3. Number of bugs recorded in this process
4. Number of times the usability testers asked doubts about searching and navigation through maps

Qualitative Measurement

1. Ease of use
2. Facial Expression of the testers
3. Performance of querying story

Potential Observations of Participant

- Did the usability tester ask questions?
- Did the usability tester complain?
- Reaction of the usability tester on successful completion of the test

Scenario 2: I Can Find My Story

Test Goals

- To check if the usability testers can use filters
- To check if the usability testers find filters useful

Scenario Description

The usability testers will be asked to use different kind of filters like Year, Location, Tags and Media Type after searching the story. They will be asked if the different filters are helping them to make the search experience better.

Task List

1. Open the Keweenaw Time Traveler Application
2. Go to Explore App
3. Select Stories tab
4. Type the story keyword in the search bar
5. Click the search button
6. Apply different types of filter
7. Observe if the filter is helping them to give best search experience
8. Record any inconsistencies if it occurred while filtering the story
9. Observe the behavior of map if it is behaving as per applied filter

Quantitative Measurement

1. Time taken by the usability testers to understand the filter feature
2. Number of bugs recorded in this process
3. Number of times the usability testers asked doubt about filter feature

Qualitative Measurement

1. Ease of use
2. Facial expressions of the testers
3. Performance of filter feature

Potential Observations of Participant

- Did the usability tester ask questions?
- Did the usability tester complain?
- Reaction of the usability tester on successful completion of the test

Scenario 3: I Am On The Map

Test Goals

- To check if the usability testers can interact with the map
- To check if the map is helping the testers to explore Keweenaw

Scenario Description

The usability testers will be asked to navigate through map dots after searching the stories. They will be asked to click the map dots and check if its associated story is getting displayed on the story section.

Task List

1. Open the Keweenaw Time Traveler Application
2. Go to Explore App
3. Select Stories tab
4. Type the story keyword in the search bar
5. Click the search button
6. A bunch of dots will be displayed on the maps
7. Click dots and check if associated story is getting displayed on the story section
8. Record the usability concerns and any inconsistencies if it occurred

Quantitative Measurement

1. Time taken to understand the interaction with map
2. Number of bugs recorded in the process
3. Number of times the usability testers asked doubt about map

Qualitative Measurement

1. Ease of use
2. Facial expression of the testers
3. Performance of Map

Potential Observations of Participant

- Did the usability tester ask questions?
- Did the usability tester complain?
- Reaction of the usability tester on successful completion of the test

Scenario 4: Let's Get Lost In Exploration

Test Goals

- To check if the usability testers can get lost in exploration
- To check if the usability testers are finding the tool engaging

Scenario Description

The usability testers will be asked to do whatever they want using the process that they have learned from above test scenarios. The goal is to go from one story to another. They can use any filter they want but the navigation should have certain directions. They will be requested to get lost in their exploration.

Task List

1. Open the Keweenaw Time Traveler Application
2. Go to Explore App
3. Select Stories tab
4. Type the story keyword in the search bar
5. Click the search button
6. Apply filters
7. Navigate from one story to another
8. Observe if the application is helping them to keep engaged
9. Click the map dots and browse the story
10. Read stories look for the media files attached
11. Record the usability concerns and inconsistencies while exploring

Quantitative Measurement

1. Time taken to get lost in exploration
2. Number of bugs recorded in the process

Qualitative Measurement

1. Overall performance of Search tool
2. Ease of use
3. Facial expression of the testers

Potential Observations of Participant

- Did the usability tester ask questions?
- Did the usability tester complain?
- Reaction of the usability tester on successful completion of the test

Appendix A

COMPUTER USER INTERFACE USABILITY TESTING CONSENT FORM

You are being invited to participate in a research study to determine the usefulness and usability of computer user interfaces. This study is being conducted by Dr. Robert Pastel of Michigan Technological University Computer Science Department and students in Dr. Pastel's Human-Computer Interaction (MCI) courses. The students are performing the usability tests as part of their project and to fulfill the HCI course requirements.

There are no known risks if you decide to participate in this research study. There are no costs to you for participating in the study. The information you provide and tasks that you will perform will determine the usefulness and usability of user interfaces. The questionnaires and the tasks should take less than an hour to complete. The information collected may not benefit you directly, but the information learned in this study should provide more general benefits.

The questionnaires and test are anonymous. Do not write your name on the survey. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study except for the instructor of the class that is giving you credit for participating. Should the data be published, no individual information will be disclosed.

Your participation in this study is voluntary. By completing the questionnaires and performing the tasks, you are voluntarily agreeing to participate. You are free to decline to answer any question you do not wish to answer or not to perform a task for any reason.

If you have any questions about the study, please contact Dr. Robert Pastel, Assistant Professor, Computer Science Department, Michigan Technological University, Houghton, MI 49931.

The MTU Institutional Review Board has reviewed my request to conduct this project. If you have any concerns about your rights in this study, please contact Joanne Polzien of the MTUIRB at 906-487-2902 or email jpolzien@mtu.edu.

Participant signature and date:

Appendix B

PRE-TEST QUESTIONNAIRE

Test Date/Time:

Age/Gender:

1. What is your major at Michigan Tech, and which year of study? _____
2. How many years have you used a smart phone? _____
3. Do you use desktop-based application or web applications?
 - a. Yes
 - b. No
4. How many hours do you use desktop every day? Please indicate your range.
 - 1 – 3 hours
 - 4 – 7 hours
 - 8 – 11 hours
 - 12+ hours
5. Do you like exploring?
 - a. Yes
 - b. No
6. Have you ever used an application which helps you to explore about people, place and things?
 - a. Yes
 - b. No
7. Have you previously done the usability testing?
 - a. Yes
 - b. No
8. Please indicate your level of agreement to the follow statement:
I am very interested in the testing of this application.
 1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree

Appendix C

BUG REPORT FORM

BUG #	BUG NAME	BUG UNIQUENESS	BUG LOCATION	BUG DESCRIPTION

Appendix D

POST-TEST QUESTIONNAIRE

1. Please indicate your level of agreement to the follow statement:

Overall, this application was easy to perform the task.

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

2. Please indicate your level of agreement to the follow statement:

I enjoy using this application.

1. Very much
2. A little bit
3. Neutral
4. Not very much
5. Not at all

3. Please indicate your level of agreement to the follow statement:

I would use this application again.

- a. Strongly agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly disagree

4. Rate the user interface of the application on the scale of 1 to 5. (5 Being highest)
5. Rate your experience in terms of getting lost while using this application on the scale of 1 to 5. (5 Being highest)
6. In your opinion, is there anything you did not like and would like to be improved?
7. Is there anything you liked very much and why?