

**Usability Test Plan**  
Team 2: Water Matters  
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# Consent Form

**Summary:** The test impose minimal risk, no harm should come to you performing the test, the results of the usability test are anonymized, and if at any time you wish to terminate the testing you may.

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 Dr. Pastel's Human-Computer Interaction (HCI) 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 and the 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 tests are anonymous. No one will be able to identify you and your answers, and no one will know whether or not you participated in the study except for the instructor of the class who 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 particular question you do not wish to answer or not to perform a task for any reason.

The testing may make use of video conferencing software which will record your tasks on computers screen and from your webcam. The webcam recordings will not be shared, and you may mute the webcam at any time. Before sharing your screen, you should clear your desktop of any open apps except your browser. Also you should clear your desktop of any icons or widget that you wish not to be observed.

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

# Test Scenario – 1 : User Experience

## Test Goals

The test will determine if the users can access and understand the content within each menu section easily and clearly.

## Required Equipment

Zoom software, Web Browser

## Quantitative Measurements

- Time taken navigating sections
- Time taken within each section
- Number of clicks within each section
- Details entered in calculator section

## Scenario Description

You are a resident of a colonia interested in learning more about water conservation due to poor access to water. You have heard about this application and would like to use it. You will use the application for the first time accessing every section and reading through resources that might be applicable to you.

## Task List

- Access the website to enter main page.
- In the task bar, click on harvesting to enter Water Harvesting Section.
- Go through the information within harvesting section.
- Click on the conservation to access Water Conservation section.
- Read through the content within this section.
- Click on Rainfall calculator.
- Select area type, enter length and width values.
- Calculation results appear in form of gallons.

## Qualitative Measurement

- Verbal feedback given during the test.
- Are participants able to access all the sections?
- Usage of Rainfall Calculator.

## Test Setup Details

The participant will use zoom application to share their screen access the website.

## Post Scenario -1 Questions

Please indicate your level of agreement to the follow statement:

1. Overall, this application was easy to perform the task.

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

2. I learned about water conservation

- a. Very much
- b. A little bit
- c. Neutral
- d. Not very much
- e. Not at all

3. I would use this application again.

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

# Test Scenario – 2: Rainfall calculator and Bilingual

## Test Goals

The test will determine if the user can properly utilize the rainfall calculator, seamlessly switch to Spanish language, view images and videos within each section.

## Required Equipment

Zoom software, Web Browser

## Quantitative Measurements

- Time taken to obtain results from rainfall calculator.
- Values entered in the calculator.
- Switching to Spanish language.
- Time spent in viewing images and videos.

## Scenario Description

You are a resident of a colonia from New Mexico who is looking for application to calculate rainfall accumulating in an area and learn more about water harvesting. You are fluent in English and Spanish and want to learn the information through images and videos.

## Task List

- Access the website to enter main page.
- In the task bar, click on harvesting to enter Water Harvesting Section.
- Go through the information within harvesting section.
- Click on the conservation to access Water Conservation section.
- Read through the content within this section.
- Click on Rainfall calculator.
- Select area type, enter length and width values.
- Calculation results appear in form of gallons.

## Qualitative Measurement

- Verbal feedback given during the test.
- Are participants able to understand and utilize the rainfall calculator?
- Are participants able to use results from the rainfall calculator?
- Are participants can switch to any language they prefer?
- Are participants able to access images and videos without any bugs?

## Test Setup Details

The participant will use zoom application to share their screen access the website.

## Post Scenario – 2 Questions

Please indicate your level of agreement to the follow statement:

1. Overall, the rainfall calculator was easy to use and understand.

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

2. I was able to learn water conservation through text, images and videos.

- a. Very much
- b. A little bit
- c. Neutral
- d. Not very much
- e. Not at all

3. I would use this application again.

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

# Bug Report Form

Bug Number	Bug Name	Bug Location	Bug Description

# Testing Challenges

Testing challenges are difficulty that we or participant might had with the testing environment which do not involve the application.

Testing Challenge Number	Name	Description