

replace with
LOGO

Usability Test Plan for Field Form

April 9, 2015

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Evaluation web / Field Form

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Executive Summary

Field Form is a project initiated by Geography Scientist Jessica McCarty and conducted by Team6 Justice League who are Michigan Tech students enrolled in CS4760/5760, & HU4628. It will adapt paper-based USDA agriculture field condition criteria and evaluation method by using Android app. Local farmers can upload weekly report of weather observation, assessment of crop condition as well as GPS location. Such field data collection across 3000 counties in U.S. will have incredible values for stakeholders.

Team Justice League

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Note: The complete survey questionnaire is included later in this document for reference.

Introduction

UI description

The purpose of the Field Form is to replace a paper and pencil method for tracking weekly report of measurements of crops from USDA volunteers. Users login on the first screen of the website, enter their location information and fill out a structured online form describing the status of the crops condition near their location.

Purpose of testing

The purpose of the testing is to identify programming bugs and examine the ease of use and work flow of the Field Form. The development team is interested in any programming errors that might interrupt the work flow and result in lost data. The scientist, Jessica McCarty, is interested in an application that is easy to use, and is safe from data loss.

Procedure of testing

- (1) Reading and signing the consent form
- (2) Answering demographic questions
- (3) Completing the pre-test to equip participant basic knowledge as much as our USDA field data collection volunteer.
- (3) Listening to scenarios, performing tasks as instructions given by tester
- (4) completing the post-test questionnaire or structured interview on their satisfaction
- (5) Being debriefed about timing of tasks.

Goal of testing

- Look and Feel
- Navigation
- Ease of use
- Ease of learning
- Recovery from errors
- Accessibility and usefulness of Help
- Overall experience

Test plan

Logger checklist

- Email all participants one day before test and leave personal contact in case losing contact
- Print out consent form and online survey related to test
- Check equipment work well such as desk top, wifi, timer, log/experiment book, video camera, etc..
- Age 65 and above

Pre-test on help documentation comprehension-5min

Please tell us just a bit about yourself..

The overall level of satisfaction uses an average of replies to quantifiable survey questions, based on a scale of 1 (extremely negative) through 5 (extremely positive). Following is an example summary of demographic areas for which overall satisfaction is calculated:

1. Your Age

Freshman Sophomore Junior Senior Others

2. Your Gender

Female Male I prefer not to respond

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

Strongly agree		Strongly disagree	1	2	3	4	5
I am very interest in the testing of this android application.	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. How many years have you used a smart phone?

Scenario 1-15min

You are a farmer who lives in Lee Mississippi. It is 65 degrees F and your county has received 5 inches of rainfall so far this year. The crops you are growing corn and 40% of your corn crops are at the silking stage and 60% are at the dent stage. Topsoil conditions have always eluded you so you use the help section to guide your decision. *Please pick a condition.



Task lists

- Create a new account
- Fill in geographic information as scenario listed.
- Using help document figure out the name of the crop, the phonological stage, and the percentage of it.
- Submit the observation

agree disagree

Tell your feeling on tasks you just performed

1 2 3 4 5

I think that I can easily complete the tasks.

I found it's easy to locate the item in menu and it's easy to navigate.

I feel confused to understand the help documentation and menu.

Scenario 2 -15min

You are a student major in agriculture in Houghton, MI. You grew wheat in your greenhouse. It's 34 degrees F and your county has received 5 inches of rainfall so far this year.

All of your wheat has headed and is looking great this time of year. In fact you took a picture of it and would like to upload it.



Task list

- Use the browser in your cell phone to visit Field Form website.
- Log in with the account you just created.
- Using GPS locate where you are.
- Follow the scenario two instructions to fill the information.
- Go outside take a picture of the surroundings and upload it.

agree

disagree

Tell your feeling on tasks you just performed

1 2 3 4 5

I think that I can easily complete the tasks.

I found it's easy to locate the item in menu and it's easy to navigate.

I feel confused to understand the help documentation and menu.

Post-test -5 min

Characteristics of the aesthetic

How did you find the store's overall appearance?

- | | | |
|---|---|--|
| <input type="checkbox"/> Clean and well stocked | <input type="checkbox"/> Unclean but well stocked | <input type="checkbox"/> Lobby/restrooms clean |
| <input type="checkbox"/> Clean but with empty shelves | <input type="checkbox"/> Unclean and with empty shelves | <input type="checkbox"/> Lobby/restrooms dirty |

How would you rate the convenience of data input?

- | | | |
|------------------------------------|----------------------------------|---|
| <input type="checkbox"/> Excellent | <input type="checkbox"/> Neutral | <input type="checkbox"/> Extremely poor |
| <input type="checkbox"/> Good | <input type="checkbox"/> Poor | <input type="checkbox"/> |

System Usability Scale

1 2 3 4 5

I think that I would like to use this system frequently.

I found the system unnecessarily complex.

I thought the system was easy to use.

I think that I would need the support of a technical person to be able to use this system.

I found the various functions in this system were well integrated.

I thought there was too much inconsistency in this system.

I would imagine that most people would learn to use this system very quickly.

I found the system very cumbersome to use.

I felt very confident using the system.

I needed to learn a lot of things before I could get going with this system.

Miscellaneous

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

Overall, this android 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 android 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 android application again.

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

Thank you very much for taking the time to complete this survey. Your input is valued and very much appreciated!

Methodology & Data collection

Evaluation measures

1. VCR (not sure)
2. Perper /pencil questionnaire as listed above
3. All recordings will follow tables
4. Date and location

Subject No.	Task No.	Task RT	Bug No.	Description	Bug location	Sub's Words/mood	Recovery strategy	Recovery time took	Recording Timestamp
							Self/ Assist		

Invitation to Participate in Web App Usability Testing 2/9

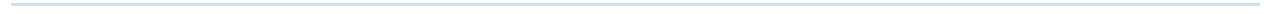
Students from Dr. Pastel's HCI and Dr. Johnson's usability courses invite you to participate in usability testing their web applications projects. The testing will take about an hour. Register for any project and hour by printing you name, email address and the course that you wish to receive extra credit in the corresponding cell. You may register for only one time slot. Although you should be reminded by email, please record the location and time for your own records. Arrive promptly on the hour. Identify yourself and the app that you registered for.

**Reserve by printing neatly your name and email address and course adjacent to the hour.
Record for your own records the time and location of the testing.**

App and Administrator: Field Form, Yuanjing Sun

Date and hour	Location	Name	Email address	Course
Apr. 14, Tue. 11:00am – 12:00 pm	Meece G08	Brion Terry	bmtorry@mtu.edu	CS 2311
Apr. 14, Tue. 11:30 – 12:30 pm	Meece G08	Scott Huffing	smuffing@mtu.edu	CS2311
Apr. 14, Tue. 6:00-7:00 pm	Meece G08	Madison Peary	mmp@mtu.edu	CS1121
Apr. 14, Tue. 6:30-7:30 pm	Meece G08	Zachary Corouat	zcorouat@mtu.edu	CS2321
Apr. 15, Wed. 6:00-7:00 pm	Meece G08	Ben Manning	btmanning@mtu.edu	CS2321
Apr. 16, Thu. 11:00am – 12:00 pm	Meece G08	Charles Heckel	checkel@mtu.edu	
Apr. 16, Thu. 11:00am – 12:00 pm	Meece G08	Benjamin Vesel	bvesel@mtu.edu	CS2321





Appendix

1. Consent Form

Computer User Interface Usability Testing

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 (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 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 particular 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 MTU-IRB at 906-487-2902 or email jpolzien@mtu.edu.

Participant signature and date: