

Human Computer Interaction

Assignment V

Test Design and Pilot Test

Food Order Website

Teammates

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Preliminary Usability Test Plan

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You may adapt this outline to meet the needs of your project and test requirements. You may embed any supporting documents such as consent forms, test scripts, and data collection spreadsheets or include them as separate documents. Similarly, you may place the documentation for individual tests to separate document(s), and just describe the testing strategy in this section, and refer to the external document(s).

the Scope and Purpose of the Tests

The purpose of the design test is to find out whether all functions work properly and if there are possible interactions that can occur during use, so that we would know if the design would successfully attract new users and results in more orders.

Firstly we will test how long a user takes to register a new account. This is important because we can measure how long a user takes to complete a registration, so if we can know if our process is efficient.

Then we will test how long a user completes a transaction. This can be known as a cycle of transaction. This is important because we can know how long a user stays within our app. The result average time may be used to measure efficiency. We will also test if all functions work and collect all the error information. The test will first be conducted on specific groups such as the developers, and then release to other test groups one by one.

At anytime of the test, the tester can quit and exit the test.

Performance Objectives to be Tested

- Functionality Usability Test

The functionality usability test can be conducted if the testers/users able to return to home-page after receiving confirmation information. If any process cannot be done or generate an error page, we should also collect this data.

- Performance Usability Test

We are going to start the timer once a user clicks 'log-in' or 'register'. The timer will be stopped once a user is returns to home page or end test.

Another performance objective is the total error numbers and error types during the use. And we will add tracking in our design to collect the user number drop and increase, and the order number drop and increase as the performance objectives.

- User Experience Usability

User experience test will be conducted after the test is over. We will give out a paper survey for participants to rate the experience. The sample survey is also provided in this document.

What Kind and How May Participants

The first group of test participants are the developers, the next group we are expecting to test are master students and young adult workers. These audience are most likely to not cook or eat at home. We will finally test on participants with different occupations. Developer group only contains 4 participants, but there would be more participants in other test groups. We expect there will be 20 participants since there is a time limit but should be more than 100 if it is possible.

What Scenarios to Test

- Login and register account
Account info setup
Locating the nearby restaurants
Restaurant list view
Online order placing
- Error conditions:
Incorrect user registration info
Incorrect password
Wrong credit card info

Specific tests and documentation

Before the actual test begins, we will give a consent form to the participant to let the participant understands his/her/its right.

1. Subjects can successfully login or register an account
2. Subjects can successfully complete an order
3. Subjects cannot register with an already used email
4. Subjects forget password
5. Subjects incapable to complete an order
6. Subjects cannot input a valid credit card information

- 1) Have a staff to set timer during a test. Once a participant click 'register' or 'log-in', timer begins.
- 2) We will have a consent form to inform the participants that the personal information collected will be confidential.
- 3) At the end, we will let the participants know only the "time" during the test is stored, no other personal information is being used.
- 4) We will give out a paper survey to ask participants to tell us what we can improve and ask them what they think about the design.

Documentations:

- Participant disclosure and consent agreement
- Participant's result during the test (user performance test, functionality test)
 - Record the time for each participant to complete a cycle
 - Record the success/error rate of completing a cycle
- Participant's paper survey after the test (user experience test)

Equipment and physical conditions

Laptop is required

Both paper survey and electronic survey is also necessary

Quiet room with tables and chairs for survey

Phone or laptop for counting time

Staff roles during test

HoKang Yu: Moderator, invites participants, get signed consent, conduct tests

Hongdan Zhu: Quantitative data collector, set timer

Xiaoyan Qin: Qualitative observer, write down any notes during tests

Yunzhu Chen: Analyst, use collected data for analysis.

Test data collected and data protections

Pageview data including timestamps, user id, order information and other test required information, user identifier will be destroyed.

Feedback are to be collected by sending surveys to test participants, and the survey questions are optional.

Qualitative and Quantitative Test Metrics

Qualitative metrics:

- Whether all functions works properly or not.
- Feedback from test participants
- Suggestion from test participants
- Emotion change of test participants when test happens in test lab room.

Quantitative metrics:

- Time consumed during registration
- Time consumed during order making
- Order number increase and drop
- User number increase and drop
- Error type numbers
- Error numbers by type

How the Test Metrics Will be Analyzed

The qualitative metrics will be analyzed by comparing the results, find out if there are any misunderstandings and check if all tasks are complete and functions works properly. We may also develop issue sheet with time, task and issue, make observations, create summary. And the quantitative metrics will be used to plot diagrams which intuitively show the data flow and change, and the quantitative metrics could also be analyzed using machine learning approach.

Pilot Usability Test Study

For this task, you are going to run a brief pilot usability test study using either your paper prototype or another prototype you may have created. Follow your usability test plan using your own group as staff but each member in turn as subject. Record any quantitative and qualitative data from your experiment as described by your usability test plan.

Write a short reflection report describing your pilot study. Include sections describing 1) the testing session itself, 2) What went well with the session, 3) What did not go well or what was unexpected with the session, and 4) what revisions did you make to your usability test plan based on your pilot session.

Participant	Time	Success	Notes
1234	2 mins	Yes	Timer should start immediately after seeing the page, instead of after clicking “register” or “login”.
1235	2:15	Yes	Error numbers should be counted by its type to identify which kind of error happens most frequently.
1236	1:50	Yes	User identifier of feedback data collected by email should be destroyed.
1237	1:57	Yes	Needs to include scenarios where users may forget password and the time to complete such action also

- Reflection: Running a test on paper prototype is not easy, because we would assume functions could just work well; therefore, some of the possible errors may or may not be included.
- However, as a group, we did our best to talk through scenarios and we also timed each person walking through each scenario.
- Expected: We do not have a list of restaurants or menu for the test, thus, it is hard to simulate the time of process. Therefore, we can only use estimated time and paused on the page while running paper prototype.
- Revision: We need a data set to collect error rate such as subjects that are unable to complete a task such as log in or make an order. We need to also expect unexpected errors when we conduct tests.

When a participant is done with the test, we will use the following survey to ask participants to rate the user experience. This survey is meant to do an overall survey on our project. Here are the sample survey questions that we may ask the participants to answer. The answers for this survey can be subjective but that is what we like to have.

Sample Survey

1 - 5, 5 as best, please gives a rate for each question

Was registration process easy to be done?	
Was making an order easy to be done?	
Was the web overall easy to be used?	
Would you consider using an pick-up order web?	

Sample Consent Form

The purpose of this research project is to provide data on our website in order for us to make improvement. This is a research project being conducted by Pickup Order Group at Northeastern University.

Your participation in this research study is voluntary. You may choose not to participate. If you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate in this study or if you withdraw from participating at any time, you will not be penalized.

The procedure involves filling an online survey that will take approximately 10 minutes. Your responses will be confidential and we do not collect identifying information such as your name, email address or IP address.

We will do our best to keep your information confidential. All data is stored in a password protected electronic format. To help protect your confidentiality, the surveys will not contain information that will personally identify you. The results of this study will be used for scholarly purposes only and may be shared with Northeastern University.

If you have any questions about the research study, please contact us at [sample@gmail.com].

☐ Agree

☐ Disagree

Participant Name:

Date:

Signature: