BWC Redesign Pre-Test Plan

Ohio | **Bureau of Workers' Compensation**

BWC UT-001: FINAL

July 2017

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Approach

The usability tests will be conducted for BWC in July 2017. The test will be performed with the BWC mobile prototype.

Purpose

The primary purpose of the test is to:

- Understand if the proposed navigation enables the users to find information quickly.
- Identify the most confusing, difficult or time intensive areas of the prototype and gather recommendations for improvement.

Other questions

- With the old site, do they think they can find what they are looking for?
- With new site, do they think they can find what they are looking for? Why?
- Does the amount of color add to the user's cognitive load?
- Do the wizards need to be linked into the section navigation?
- Do the users need to see any other info to complete the wizards?
- What do they think of the text on the Next steps screens? Does it need more information? If so, what?
- Does the user understand dual function of the navigation buttons?
- Does the user have a location preference for the expansion indicator (placement of plus sign)?
- Where would the user expect to find worker or employer forms (site areas)?
- Does the user notice the decrease in colors as they move into the site areas?
- Does the user notice the breadcrumb navigation?
- Do users want to see an "entry" page before wizard?
- Do they like the "sticky" buttons?
- Do they like the primary action buttons at the top of the screens?
- Does the user want/expect to see Suggested links on every page or just main (Worker, Employer) pages?

Method

Worker & employer usability testing

The usability tests will be carried out with 3 - 5 users of each user type who agree to participate in the test. Participants will be tested one at a time. Each test will be recorded.

A usability professional will act as the test facilitator. All tests will be conducted in a meeting room at the OCOSH site. Each test will take about 75 minutes.

The usability test consists of following phases: Solving tasks, A/B testing, and Debriefing. In this test, the phases will contain the following steps:

Solving tasks: Test participants will be asked to perform tasks using the prototype. These tasks are included in Usability test section of this document.

Test participants will be asked to think aloud and comment on the prototype while they are carrying out the tasks for quantitative analysis.

A/B prototype: Test participants will be shown several screens and asked which they prefer and why.

Debriefing: Test participants will be debriefed about their general impression of the prototype and screens. The debriefing questions are included in the usability test script in Usability test section of this document.

We will be particularly interested in any quantitative and qualitative comments.

Discussion of method usability test

The basis for this usability test is the recognized "think aloud" method. This method is described in several generally recognized books within the usability field, for example:

- *Usability Engineering* by Jakob Nielsen (Academic Press 1993, see also www.useit.com).

Equipment

The equipment used for this test will be a Dell Latitude E6540 laptop computer. The Axure 8 BWC prototype and A/B test screens will be displayed on Mozilla Firefox 53.0.2 browser. Camtasia Studio 8 will be used to record all sessions.

Feedback and observation

Facilitator's roles and responsibilities

General responsibilities

- Responsible for test planning and reporting
- Creates test questions and Axure prototypes
- Responsible of comfort of participants
- Prints tasks

Before each test

- Starts screen recording, if necessary (Camtasia)
- Reloads sample data, if necessary
- Opens a landing page in browser

During the test

- Greets users
- Answers any questions before starting the tasks
- Conducts tests & focus group
- Probes into the issues that arise, takes notes
- Prompts users to remember to verbalize their thoughts
- Runs the debriefing – Q&A with user at end of session

After each test

- Stops the screen recorder (if used)
- Saves the recording (if used)
- Ends the screen sharing session, if necessary
- Takes time before the next session to jot down a few notes about things observed
- Copy the screen recording files to a thumb drive, if applicable

After test in general

- Watches recordings and make notes
- Produces usability test report with recommendations for improvement
- Captures screen shots if necessary
- Creates and distributes test report

Results and metrics

The usability facilator creates a test report with the findings, quotes from test participants, test task results with usability metrics and any feedback.

Quantitative data

Quantitative data are measures of values or counts and are expressed as numbers. Participant's demographic data will also be included. Not all of the following metrics will be used.

Metric	Equation	Description
Time on Task	N/A	Total task duration is the de facto measure of efficiency and productivity. Record how long it takes a user to complete a task in seconds and or minutes. Start task times when users finish reading task scenarios and end the time when users have finished all actions. Time saved can be an excellent measure of productivity and ease of use.
Task Level Satisfaction	Ease of use question	After users attempt a task, have them answer a single question about how difficult the task was. Task level satisfaction metrics will immediately flag a difficult task, especially when compared to other tasks.
Errors	Treat errors as binary data and code the raw error counts as either 1's (user committed at least 1 error) or 0's (user committed no errors). This loses some information but for many tasks and applications which don't see many errors, this may be sufficient. Average the number of errors by task gives you some idea about the	Record any unintended action, slip, mistake or omission a user makes while attempting a task. Record each instance of an error along with a description. For example, "user entered last name in the first name field".

		experience.
Expectation		Users have an expectation about how difficult a task should be based on subtle cues in the task-scenario. Asking users how difficult they expect a task to be and comparing it to actual task difficulty ratings (from the same or different users) can be useful in diagnosing problem areas.
Completion rate		The completion rate is calculated by assigning a binary value of '1' if the test participant manages to complete a task and '0' if he/she does not.
Effectiveness	Effectiveness = # of tasks completed successfully divided by the total # of tasks undertaken multiplied by 100%	Effectiveness refers to the accuracy and completeness with which users can achieve their goals.

Slips and mistakes

Slips are the classic unintended action a user makes while trying to do something on an interface even though the goal is correct (e.g., a typo). When the goal is wrong it's a mistake, even if that goal was accomplished.

Here are some slips:

1. Mistyping an email address
2. Mistyping a password
3. Accidentally clicking an adjacent link
4. Clicking Reset instead of Submit (FYI don't have a Reset button on a form).
5. Mistyping an email address in the "Re-Enter" email address field
6. Picking the wrong month when making a reservation
7. Accidentally double clicking a button (often with a double submitted form)

Here are some mistakes:

1. Clicking on a heading that isn't clickable
2. Intentionally double clicking a link or button
3. Typing both first and last name in the first name field
4. Entering today's date instead of the date of birth

5. Replying to all in an email instead of just one person
6. Entering hyphens in your bank account number

Four Causes of Errors

When we observe errors in usability tests we find it helpful to identify their causes and find they generally fall into four broad categories.

1. **Slips**: You can't eliminate all those "fat finger" errors or typos but seeing a lot of slips can be a good indication to reduce required fields or data entry where possible.

2. **Mistakes**: When we see users entering the wrong format in a field it's usually a good indication that some field-hint, an auto format or some code that gracefully strips non-numeric characters might reduce these mistakes.

3. **User Interface Problems**: Errors caused by the interface are the ones we're most interested in as we can usually do something about these. If users continue to click on a heading that's not clickable (mistake) or look for a product in the wrong part of the navigation then there's probably something about the design that we can improve.

4. **Scenario Errors**: No matter how sophisticated and realistic our usability tests are, there is some degree of artificiality to them. For example, if you want to test how well users can pay a credit card bill online then you have to provide them with fake data and a test system. Inevitably we see errors related to the artificial scenario as users see balances and transactions that are foreign to them. We can't do much about these errors except note that they are unlikely to be encountered in actual use.

Qualitative data

Data related to:
- Observations about pathways participants took
- Color, image and font preference
- Problems experienced
- Comments/recommendations
- Answers to open-ended questions

Usability test

Usability test script for worker & employers

Thank you for coming today.

We at the Ohio Bureau of Workers' Compensation are working to redesign our website. Our goal is create a better customer experience. We want you to not only find the information you need but also do business with us quickly and easily. As part of this process, we are asking a variety of users to attempt to use a website prototype so that we can understand what elements need to be changed.

I'd like to stress that we're testing the prototype, and not you or your computer abilities. If you find parts of the prototype difficult to use or understand, so will other people, and it will be our job to ensure we make the appropriate changes to improve it.

You cannot do anything wrong here. We want to improve the website so we need to know what you honestly think about it. I am going to ask you to complete some activities and I may ask you questions either before or after each task. As we go along, I am going to ask you to think out loud, to tell me what's going through your mind. This will be very helpful to us. If you cannot complete a task and or are unsure how to proceed, please just let me know.

I am recording this session for research purposes only. You will be idenitifed by number only. If you have any questions, just ask. I may not be able to answer them right away, since we are interested in what people do when they don't have someone sitting next to them, but I will try to answer any questions when we are done.

If you need to take a break, please let me know.

Do you have any questions before we start?

Test tasks

After 75 minutes, the test facilitator terminates the test regardless of the number of test tasks completed.

Individual tasks can also be interrupted if the test participant cannot advance with the task or if the test facilitator finds that no new information would come of continuing with the task.

Worker with prototype

	#	Task	Notes
Find employer	1	You work for McDonald's Construction Company in Grove City, OH, What is the name of the MCO for that company? Is your employer's worker's compensation policy up to date?	What do they think of this page? Do they understand the navigation?
Worker	2	What information is required to file a claim?	How do they navigate? What do they think of this page?
Worker	3	Where would you expect to find a direct deposit form?	
Main or worker page	4	File a claim You work for McDonald's Construction Company, 321 Bumble Bee Ave, Grove City, OH. How many steps are in this application?	Can they see the text? Does the summary tables need to be darker? What info would they like to see on Next Steps? Was there anything that was confusing – that you may want help to define?
Fraud	5	Your neighbor told you he is getting workers' compensation benefits for a work-related injury and that he can't walk without the cane his doctor provided him. You have photographed him playing softball on a league that plays twice per week. Please report this online and upload your images.	Can they see the text? What info would they like to see on Next Steps? Was there anything that was confusing – that you may want help to define?

	#	Task	Notes
Safety	6	What kind of equipment can an employer buy with money from the Firefighter grants program?	

Employer with prototype

	#	Task	Notes
Employer	1	You just started a new construction business. Do you need worker's compensation coverage?	What do they think of this page? Do they understand the navigation?
Employer	2	What information is required to apply for workers' compensation coverage?	What do they think of this page? Do they understand the navigation?
Employer	3	Where would you expect to find a policy update form?	
Main or employer page	4	You just started a new construction business. Apply for workers' compensation coverage. How many steps are in this application?	Can they see the text? What info would they like to see on Next Steps? Does the summary tables need to be darker? Was there anything that was confusing – that you may want help to define?
Fraud	5	Your neighbor told you he is getting workers' compensation benefits for a work-related injury and that he can't walk without the cane his doctor provided him. You have photographed him playing softball on a league that plays twice per week. Please report this online and upload your images.	Can they see the text? What info would they like to see on Next Steps? Was there anything that was confusing – that you may want help to define?

Safety	6	What kind of equipment can an employer buy with money from the Firefighter grant program?	

After usability test questions

- If you were presented with a simple survey on the new website, how likely would you be to fill it out? (Was the website easy to navigate? Did you find the information you were looking for? Was there information you had a hard time finding? If so what?)
- Did you understand the dual action of the navigation controls?
- Was the text on the screens easy to read?
- Do you like the information on this page? What information would be important to you?
- What did you think of the colors? Too much?
- What do you think about finding information in the prototype?
- Were any screens hard to understand or confusing?
- What do you like least about the application?
- What do you like best about the application?
- What one thing would you tell the designers to change?

A/B test

What	Where	Questions
Main page layouts	In prototype	Which do they prefer? Why?
Gray/blue buttons at top	In prototype	Which do they prefer? Why? Would you rather have buttons at bottom?
Colored page heading	In prototype	Which do they prefer? Why?
Images	Paper	Which do they prefer?

		Why?
Fonts	In prototype	Which do they prefer? Why?
Text color	In prototype	Which do they prefer? Why?

Demographics

Participant #

What is your gender?   M   F

What is your age?   18-24 years old

                                      25-34 years old

                                      35-44 years old

                                      45-54 years old

                                      55-64 years old

What is the highest degree or level of school you have completed? *If currently enrolled, highest degree received.*

- Some high school, no diploma
- High school graduate, diploma or the equivalent (for example: GED)
- Some college credit, no degree
- Trade/technical/vocational training
- Associate degree
- Bachelor's degree
- Master's degree or above

Are you color blind? Yes / No