Usability Test of
UCRS e-Learning DVD

December 2006

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Executive Summary

This report documents the findings of a usability test of the UCRS e-Learning DVD. The main purpose of the test was to assess the usability of the DVD for UCRS CSRs.

Background

November 24, 1993, President Clinton signed law requiring states to establish and utilize a system of profiling all new claimants for regular UC benefits. The purpose of the law is to identify claimants who are likely to exhaust UC benefits and need job search assistance to make a successful transition to new employment.

The REA program is an expansion of the current Unemployment Compensation Reemployment Services (UCRS) program. It requires a face-to-face, one-on-one assessment to be performed in One Stops with UC claimants and is intended to identify eligibility issues and possible barriers to employment, as well as to provide the necessary tools to claimants to assist them in developing a work search plan to obtain employment.

UCRS has engaged in a project to create an e-Learning DVD that will be distributed to each of the CSRs in the One Stops throughout the state. The DVD will be an orientation to reemployment services. It is fully narrated and contains videos, animations and simulations of OJI and SCOTI. It has been designed to be educational and has incorporated many aspects designed to retain the attention of the student.

Positive aspects about e-Learning DVD:

- **Ability to use buttons.** Most test participants had no problems using the buttons to move from page to page or pause and stop the screens.

- **Quizzes**. Test participants considered the section quizzes to be very easy to use.

- **Animations**. Most test participants commented positively on the animated characters.

- **Chapter 2**. All test participants found Chapter 2 layout, graphics, and screen colors to be pleasing and easy to use.

Improvement areas for e-Learning DVD:

- **Audio and text not matching in the Timeline and in Chapter 1.** All participants noted that the audio and text did not match. They found this very problematic: "I want to read along but I can't."

- **Misspellings.** Most test participants found the misspellings to be distracting.

- **Ability to read text.** Dark background and drop shadows on text made the text very hard to read on many screens in Chapter 1.

Based on the usability problems identified in this test, recommendations are as follows:

- Ensure text and audio match up on most screens in the DVD.
- Change background colors per standards. Eliminate drop shadows on text.
- Fix misspellings.
- Have something change or add more graphics if a graphic is on the screen for over a minute.

For more specific changes, see "Usability test results.doc

Theresa Wilkinson
December, 2006

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1. Approach

The usability test was conducted for the e-Learning DVD in December, 2006. The test was carried out on the portions of Chapters 1 and 2.

1.1. Purpose

The primary purpose of the test was to assess the usability of DVD for CSRs.

1.2. Method

The test has been carried out with seven users who agreed to participate in the test. The profiles of the test participants appear in section 1.5. Test participants were tested one by one.

A usability professional acted as test facilitator. All tests were conducted in cubicle on site. Each test took about one hour.

The usability test consists of two phases: Solving tasks and Debriefing. In this test, the phases contained the following steps:

Solving tasks: Test participants were asked to carry out tasks using the DVD.

These tasks are included as appendix C.

Test participants were asked to think aloud and to comment on the DVD while they were carrying out their tasks.

Debriefing: Test participants were asked questions and then asked to fill in a questionnaire while thinking aloud. We were particularly interested in the verbal comments they made while filling in the questionnaire. In addition, test participants were debriefed about their general impression of the DVD. The questionnaire and the debriefing questions are included in the usability test script in appendix A.

1.3. Discussion of Method

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).

1.4. Equipment

The equipment used for this test was a desktop Compaq Evo with a 15" HP 1940 monitor. Microsoft Internet Explorer 7 was used.

The computer was set up to run the DVD from files on the desktop.

1.5. Test Participant Profiles

The tests were carried out with test participants who fulfilled the following requirements:
• Between 30 and 55 years old.
• Somewhat experienced to experienced Internet users.

The number of men and women in the group were not equal.

Participant	Gender	Internet experience*
1	Male	Somewhat Experienced
2	Female	Somewhat Experienced
3	Female	Somewhat experienced
4	Female	Somewhat experienced
5	Female	Experienced
6	Male	Experienced
7	Female	Experienced

* Internet experience was classified by the test participant according to these groupings:
1. None (e.g. no Internet experience)
2. Bystander (e.g. has watched other persons use the internet)
3. Beginner (e.g. has used it once or twice)
4. Somewhat experienced (uses it regularly)
5. Experienced (uses search facilities without problems)
6. Very experienced (has developed web sites)

1.6. About the Report

• Quotes: The report contains quotes from test participants.

Appendix A contains the full usability test script including the tasks given to the test participants.

Appendix B contains a table that shows test tasks and the test participants' success in solving them.

2. Findings

Findings are categorized by the facilitator using the following categories:

Good. This approach is recommendable.

Good idea. A suggestion from a test participant that could lead to a significant improvement of the user experience.

Minor problem. Caused test participants to hesitate for a few seconds.

Serious problem. Delayed test participants in their use of the DVD, but eventually they were able to continue.

Critical problem. Caused frequent catastrophes. A catastrophe is a situation where the DVD "wins" over the test participant, i.e., a situation where the test participant cannot solve a reasonable task or which causes the test participant great irritation.

2.1. Navigation bar

Note: P1 - Is the navigation bar at the top and bottom necessary to be up all the time? It makes the screen look too busy. Take up entire screen like the quiz.

P1, P3, P4, P5, P7 - Used scroll bar and Next button without any problems.

P6 - Tried to use the back button on C1_1_14 and became frustrated. Participant thought it would work similar to a "rewind" button where it would rewind within C1_1_14 and instead it returned the participant to screen C1_1_13.

Comments:

P2 - Wanted the system to tell him/her when to click Next. He/she did not use the scrollbar.

P4 – Can you make the Next button more obvious?

P5 – Can you make it advance for you? He/she was using all buttons (Pause, Play) with no problems.

P6, P7 – Had to remind him/her to use the Next button.

2.2. Timeline

⚠️ P1, P2, P3, P4, P7 – Text and audio does not match. It is very distracting.

🔵 P1, P2, P3, P4, P7 - Noticed where audio left out the text for 1998.

🎧 P4 – Can you shorten the JFK video?

Comments:

P2 - Since text and audio do not match had to listen intently and had no time to read text. "I want to read along but I can't."

P2, P5 – "Too much history. Time is precious."

P2 – Had problems reading white text on the dark background screens. She had to move closer to the screen to see the text (bifocals).

P2 – On 1973, "how many more dates to I have to go though?"

P4 – Can you shorten the JFK video?

P3 – What is the relevance of the historical facts with UCRS, specifically man on moon and Berlin wall? The 1993 information did make sense.

P5 – Why would I want to know about the Beatles, Monopoly, Match Game, or the other stuff in there? Just get right to the point. Time is a big consideration. Suggested that the history section be shortened.

P6 – At first, this participant made comments like "Seems like a lot of filler here" and "this is the boring part" but at the end of the timeline, he/she said "the reference to all the history and what is going on that year is pretty cool." He/she asked for more detailed information on REA in 2004.

P7 – He/she would rather read or listen, not both since he/she could not read along with the text. He/she thought the younger staff may not be able to relate to the information on the timeline (Beatles, Match Game). History was too long.

2.3.   C1_1_12 - Clinton

P2 – "Can you bullet the text to emphasize the points being made? No text on the screen. Need something to happen."

P3, P5 – What is the purpose of the magnifying glass? It makes it hard to read the screen text.

Comments:

P4 – How does Bill Clinton relate to text about CSRs? Liked the magnifying glass but text had no correlation with audio.

P6 – "You are losing me here." "I am not focusing or listening." Mentioned that text and audio did not match up in this section.

P7 – "Why is there a photo of Bill Clinton when you are talking about CSRs?" Clicked Next button to advance.

2.4.   C1_1_13 – Profiling Intro

P1, P5, P6, P7 – Misspellings are distracting.

Comments:

P5 – He/she became bored in this section and started to daydream. Just get to the point. This chapter seems very long.

P6 – The fading people graphic is cool.

P7 – "The group of people graphic is blurry – it is starting to bother me since I have been looking at it for so long."

2.5. C1_1_14 – Statistical model screen

P1, P2, P6, P7 found it very distracting with the animation going all the time. Too busy.

P2, P7 – Hard to read text with drop shadow.

Comments:

P6, P7 – Why would I want to pay attention to the statistical information since OH did not choose this model? Very bored. Did not listen very well.

P7 – "Received" on the screen is misspelled.

2.6. C1_2_1 – B&W movie

Comments:

P1, P7 – Lines on the B&W movie are distracting.

P7 – Audio is really loud.

2.7. C1_2_3

P2 - Best practices boxes seem to fly in from no where. Can you have them look like they are coming from the states?

P6 – Best practices boxes look blurry.

P2 – Can you make the text box bigger? Hard to read the text.

2.8. C1_2_4 – Color movie

P1 – Can you use an arrow to point to where you are referring on the screen?

P4 – Not obvious on the map what is being referenced. Can you point to what you are talking about? Can you pan slower?

Comments:

P7 – He/she was not sure the language was correct about the One Stops as local offices – made it sound like no partners were involved.

2.9. C1_2_6 – US Map

⚠️ P2, P4 – Dark background and white text is "getting to me." P6 also moved in closer to look at text on the darker screens even though he/she did not mention this as a problem.

Comments:

P4 – "Local Operations is not centered."

2.10. C1_2_7 – Piggy bank

✅ P6, P7 – He/she liked the pig. Laughed out loud.

2.11. C1_2_9

🔵 P2 - White boxes and line that goes up to governor. Can you make the boxes larger? Hard to read.

⚠️ P2 – Dark background and white text is "getting to me."

⚠️ P4 – Too much dark blue. Text is hard to read.

2.12. C2_1_1

🎧 P2 – Can you spell out what OJI stand for as he says it?

2.13. C2_1_6 – Showing profiling pool by county report

🎧 P4 – Can you add an arrow to point to where the text is referring to on the report? Circle the county or put an arrow at the top of the report? This would make it easier to follow along.

🎧 P7 – Can the audio and text match up better?

2.14. C2_2_2 - Guys

✅ P4, P5 – Really liked chapter 2 overall. Liked the photos and bulleted text.

✅ P6 – After this section finished, "I really liked that section."

Comments:

P7 – "This is the third time we have heard about the six characteristics."

P7 – "For the first photo, you should show a group of people instead of one guy." Liked photo of guy ripping up the letter.

2.15. Quiz

✅ P1 – Liked how quiz took up the entire screen. Very easy to use. Liked the instructional text.

Comments:

P4 – Can you make the text that says "Yes, that is correct" in a different color?

P5 – No questions about the Beatles?

P7 – He/she wanted to click the Next button in the center of the screen, not on the side.

2.16. General comments

✅ P1 and P2 – Liked the text boxes.

🔵 P2, P4 – A lot of audio. Really had to listen. Could be overwhelming to some people. Can you do it at a slower pace? Too much information to absorb.

✅ P4 – Really liked the text font and size.

⚠️ All noticed that the Pause button did not always work.

⚠️ P4 – Could not unclick the subtitles when she had the full text screen up.

⚠️ P5 – He/she wanted to click the Next button on all screens. She clicked out of 1961 and 1962. She clicked through all animations.

🔵 P5 – Felt Chapter 1 is a good overview but it is too long. Keep things at a minimum. Use more visual examples. Too many photos. Use more bullets (liked Chapter 2).

⚠️ P5 – Remember there are older people at the One Stops. On some screens, the fonts are too small.

✅ P6 – Liked the animations especially the pig and the professor.

✅ P7 – Liked when the audio and the text matched up. He/she did not expect the bullets to match up exactly to the text – knows the information is condensed. "When the text matches the audio, I don't have to listen as intently."

Appendix A. Usability Test Script

Thank you for coming today.

We're working on the on the UCRS e-learning DVD, and as part of the process we're asking a variety of people to attempt to use the DVD to see what elements need to be changed.

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

You cannot do anything wrong here. We want to improve the DVD so we need to know what you honestly think about it. 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 helpful to us.

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.

I will also ask you some questions while you are going through the DVD.

Do you have any questions before we start?

Test tasks

1. Go through Ch 1 sections 1 and 2
2. Complete 2 quiz questions.
3. Go through Ch 2 section 1 and 2
4. Tell me where are you in the DVD – What chapter? What page number?
5. Can you locate the online help
6. Can you view subtitles for the audio?
7. Can you view the full text for this page?

After 60 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.

Interview after test

A. Do you like the screen colors? Is anything to light? Is anything too dark?

B. Do you like the font? Font size? Font color?

C. Are the animations distracting?

D. Are there any unfamiliar terms?

E. Does the information make sense?

Questionnaire and results

"I have brought a brief questionnaire that I would like you to fill out. Please continue to think aloud as you make your selections so I understand why you tick off what you do."

			1	2	3	4	5	6	7		NA	
1	The DVD was easy to install.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	NA
2	Overall, I am satisfied with how easy it is to use this DVD.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	4 users rated 7 3 users rated 6
3	It was simple to use this DVD.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	2 users rated 7 5 users rated 6
4	I feel comfortable using this DVD	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	1 user rated 7 4 users rated 6 1 user rated 5
5	Learning to operate the DVD would be easy for me.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	2 users rated 7 5 users rated 6
6	Using the DVD would enhance my effectiveness on the job.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	1 user rated 7 4 users rated 6 1 user rated 5 1 user rated N/A
7	Using the DVD would make it easier to do my job.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	1 user rated 7 5 users rated 6 1 user rated N/A
8	The information provided for the DVD is easy to understand.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	4 users rated 6 2 users rated N/A 1 user rated 4
9	It was easy for me to determine my location in the DVD.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	5 users rated 6 2 users rated 5
10	The organization of information on the DVD screens is clear.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	1 user rated 7 2 users rated 6 2 users rated 5 1 user rated 4

												1 user rated 2
11	The interface of this DVD is pleasant.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	1 user rated 7 5 users rated 6 1 user rated 5
12	I like using the interface of this DVD.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	4 users rated 6 2 users rated 5 1 user rated 4
13	This DVD has all the functions and capabilities I expect it to have.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	1 user rated 7 3 users rated 6 3 users rated 5
14	Overall, I am satisfied with this DVD.	strongly disagree	O	O	O	O	O	O	O	strongly agree	O	6 users rated 6 1 user rated 4

15. How would you rate the overall ease of use or difficulty of the DVD?

1	2	3	4	5
Very Easy	Easy	Neither Easy Nor Difficult	Difficult	Very Difficult

Comment:_____

2 users rated 1 – Very Nice. I need something like this for our troops in SCOTI.

5 users rated 2

16. How easy or difficult was it to find information in the system?

1	2	3	4	5
Very Easy	Easy	Neither Easy Nor Difficult	Difficult	Very Difficult

Comment:_____

6 users rated 2

1 user rated N/A

17. What do you like least about the DVD?
   • Section 1 – History was too involved. Could condense and get to UCRS/REA sooner.
   • Some of the beginning fillers.
   • The narration at the beginning.
   • Historical timeline, too much. Purpose?
   • Talking pace too fast.
   • Too much blue.
   • Trivia relevance
   • Reduce Chapter 1 – too long (overview is key here)
   • Screen crowdedness
   • Text/audio doesn't match somewhat distracting

18. What do you like best about the DVD?
   • Ease of navigating from one screen to the next.
   • The entire process was very easy – not a problem to operate.
   • Interactive
   • Choice – subtitles, listening
   • The professor
   • Correlation of OLO, One Stop, UI
   • The quizzes
   • Drop down info was helpful
   • Attempt at humor and variety

19. What one thing would you tell the designers to change?
   • Match screen text to audio text whenever possible
   • The beginning
   • Blue!!
   • Automatically advance to next page.
   • Reduce top and bottom navigation top and bottom bar. Make the center more visible.

Appendix B. Test Task Results

The chart below lists all test tasks and all test participants. Each entry indicates how long it took the test participant to complete that particular task.

Usability test results:

	1	2	3	4	5	6	7
Task 1	35 min	25 min	34 min	35 min	32 min	41 min	41 min
Task 2	09 min	N/A	10 min	8 min	9 min	12 min	10 min
Task 3	5 sec	5 sec	4 sec	1 sec	3 sec	5 sec	6 sec
Task 4	10 sec	10 sec	3 sec	3 sec	3 sec	10 sec	4 sec
Task 5	5 sec	3 sec	10 sec	2 sec	5 sec	5 sec	3 sec
Task 6	15 sec	3 sec	5 sec	1 sec	12 sec	3 sec	3 sec