



INTEGRATION OF HEALTH-RELATED QUALITY OF LIFE INTO SYSTEMATIC HEALTH RISK APPRAISAL AND PERSONALIZED CARE PLANNING

Monica Jordan

Mentor: Zsolt Nagykaldi, PhD

University of Oklahoma Health Sciences Center

Department of Family & Preventive Medicine

Family Medicine Summer Research Experience 2014

OVERVIEW

- Our Goals
- Methods
- Results
- Next Steps

OUR GOALS

- Usability test and finalize the Meaningful Life Activities page and the Level of Disability page of the HRQoL module to maximize user maneuverability and comprehension
- Develop and complete the final Report and Health Recommendation page of the HRQoL module so that it gives the user information about and resources for each recommendation
- Incorporate some major risk factors from the HRA module into the HRQoL module to produce more personalized recommendations
- Measure the impact of an HRQoL HRA-module on patients' and clinicians' perceptions of the tool's acceptability, usability, utility, and value

METHODS

- Four 15-minute Think-Out-Loud sessions
 - 3 Non-clinical, clerical staff and 1 PA acting as patient at the OUHSC FMC
- Six 15-minute Semi-structured interview sessions
 - Geriatric patients from Purple Clinic's regular visit schedule at OUHSC FMC

METHODS: “THINK-OUT-LOUD” SESSIONS

- Four 15-minute Think-Out-Loud sessions
 - 3 Non-clinical, clerical staff and 1 PA at the OUHSC FMC
 - Sessions were video- and audio-recorded
 - iPod Touch device facing the computer screen
 - Concurrent field notes were taken during session
- Recordings and field notes were evaluated by two researchers independently
 - Verbal content and meta-communication from the video
 - Concurrent cursor movements, clicks, and navigation patterns from the video
 - Background information about the personal context of participants gained from the enrollment process.
- Formulated categories (horizontal coding followed by axial coding) using NVivo 10 Software
- Compared notes and argued emerging categories to consensus
- Collected more data until saturation of categories was reached
- Implemented and tested incremental changes during the research process

METHODS: SEMI-STRUCTURED INTERVIEWS

- Six 15-minute Semi-structured interview sessions
 - Geriatric patients from the OU Family Medicine Center, Purple Clinic
 - Obtained a list of patients scheduled for a regular office with an attending physician within the next 3 weeks
 - Selected patients over 50 y.o.
 - Additional criteria: Availability, cognitive competence, and potential willingness to participate
 - Participant received a pre-visit opt-in phone call. After office visit, participant was consented.
 - Participants completed the module and answered questions about their experience
 - Interview was audio-recorded
 - Concurrent field notes were taken during each session to document meta-communication and other observations
 - Recordings and field notes were evaluated by two researchers independently
 - Formulated categories and argued them to consensus
 - Collected more data until saturation of categories was reached
 - Implemented iterative changes during the research process

NVIVO 10

FMSRE.nvp - NVivo

File Home Create External Data Analyze Query Explore Layout View Media Tools Media

Navigation View Find Quick Coding Detail View Workspace Dock All Undock All Close All Window Docked Bookmarks Layout List View List View Coding Stripes Highlight Coding Annotations See Also Links Relationships Links Node Node Matrix Framework Matrix Classification Report Previous Next Color Scheme Visualization

Nodes

- Nodes
- Relationships
- Node Matrices

Name	Sources	References	Created On	Created By	Modified On	Modified By
Ability Screen	1	1	7/28/2014 2:21 PM	MJ	7/28/2014 2:21 PM	MJ
Instructions for Meaningful Activities	6	15	7/17/2014 12:39 PM	MJ	7/29/2014 1:30 PM	MJ
MLAs in 2 steps	5	5	7/18/2014 2:36 PM	MJ	7/28/2014 2:19 PM	MJ
Results Screen Reaction	5	13	7/17/2014 12:53 PM	MJ	7/29/2014 1:30 PM	MJ
Usability	5	16	7/18/2014 2:43 PM	MJ	8/1/2014 11:51 AM	MJ

Click to edit

0:00.0 1:30.0 3:00.0 4:30.0 6:00.0 7:30.0 9:00.0 10:30.0 12:00.0 13:30.0 15:00.0 16:30.0

2

Sources

Nodes

Classifications

Collections

Queries

Reports

Models

Folders

Timespan

Content

5

R notes:
P had to move the monitor closer, did not attempt to move it after video started, but did not use the increase/decrease text functions.
P was confused many times but did not ask R for instructions, so R did not interrupt.
P was able to work out many kinks on her own without input from R.
P looked through all of the Independent activities before making selections.
P struggled to remember instructions after they disappeared.
P moved on to the next screen after max MLAs were chosen despite not having looked at them all yet.
P read through entire results page, seemed to understand what the page meant.
P scrolled through "more info" page not realizing that her specific recommendations were only a few of the ones on the comprehensive list.

6

Changes to make:
prompt added after first 3 activities so P can commit

MJ 7 Items Nodes: 5 References: 16 Read-Only Unfiltered 0:00.0/16:32.3 16:32.3

RESULTS

■ Themes That Emerged:

■ Understanding the Module's Purpose

- Prioritization Process

■ Usability

- Presentation/Design
- Ease of Use

■ Literacy

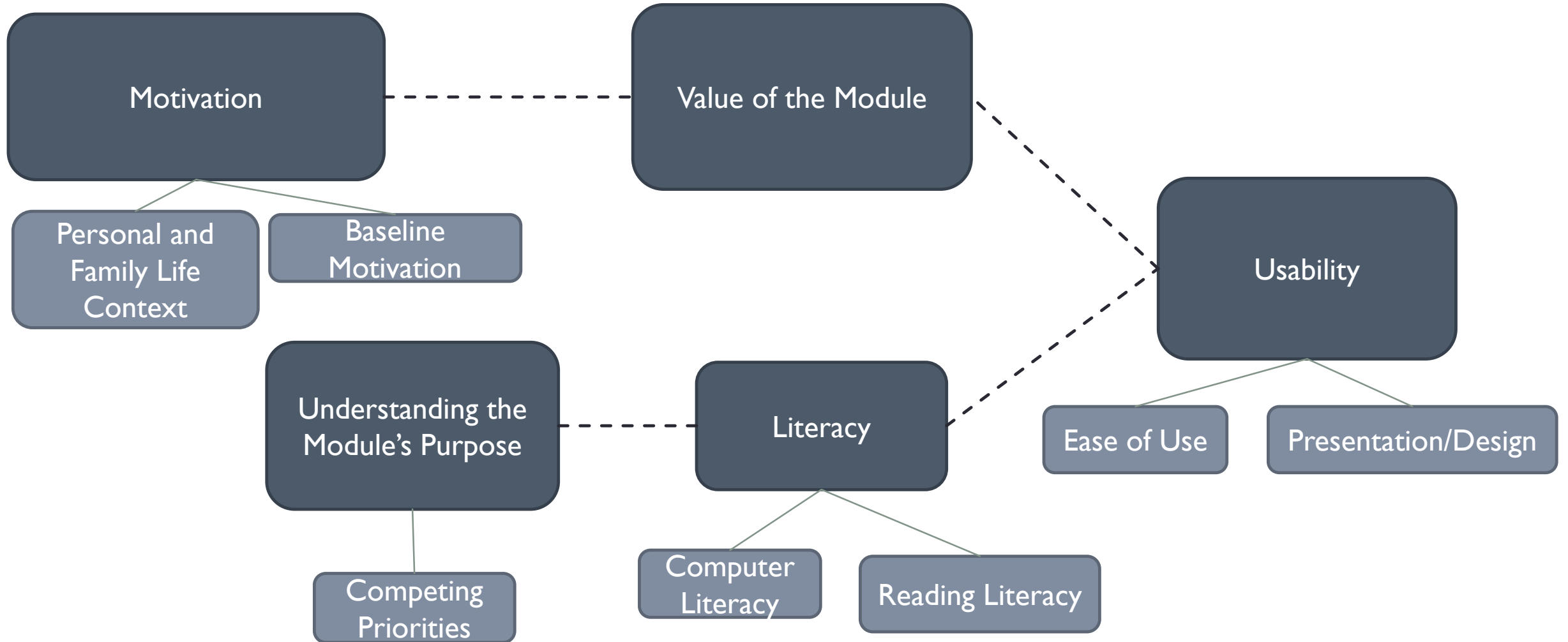
- Reading Literacy
- Computer literacy

■ Value of the Module

■ Motivation

- Baseline Motivation
- Personal and Family life context

THEME HIERARCHY AND SUGGESTED RELATIONSHIPS



THEMES: UNDERSTANDING THE PURPOSE OF THE MODULE

- “it was a survey about me...”
- “It is interesting and makes you think about what you really want in life, what you are looking for in your life, how you wanna stay healthy (...) and active.”
- Prioritization
 - “Limited number of choices...”
 - “Went back and changed some of my selections...”
- Introduction screen to frame the purpose of the module
- Improve instructions in ADL and IADL segments to better reflect purpose
- Improve the description of the exercise to clarify that there is expected difficulty

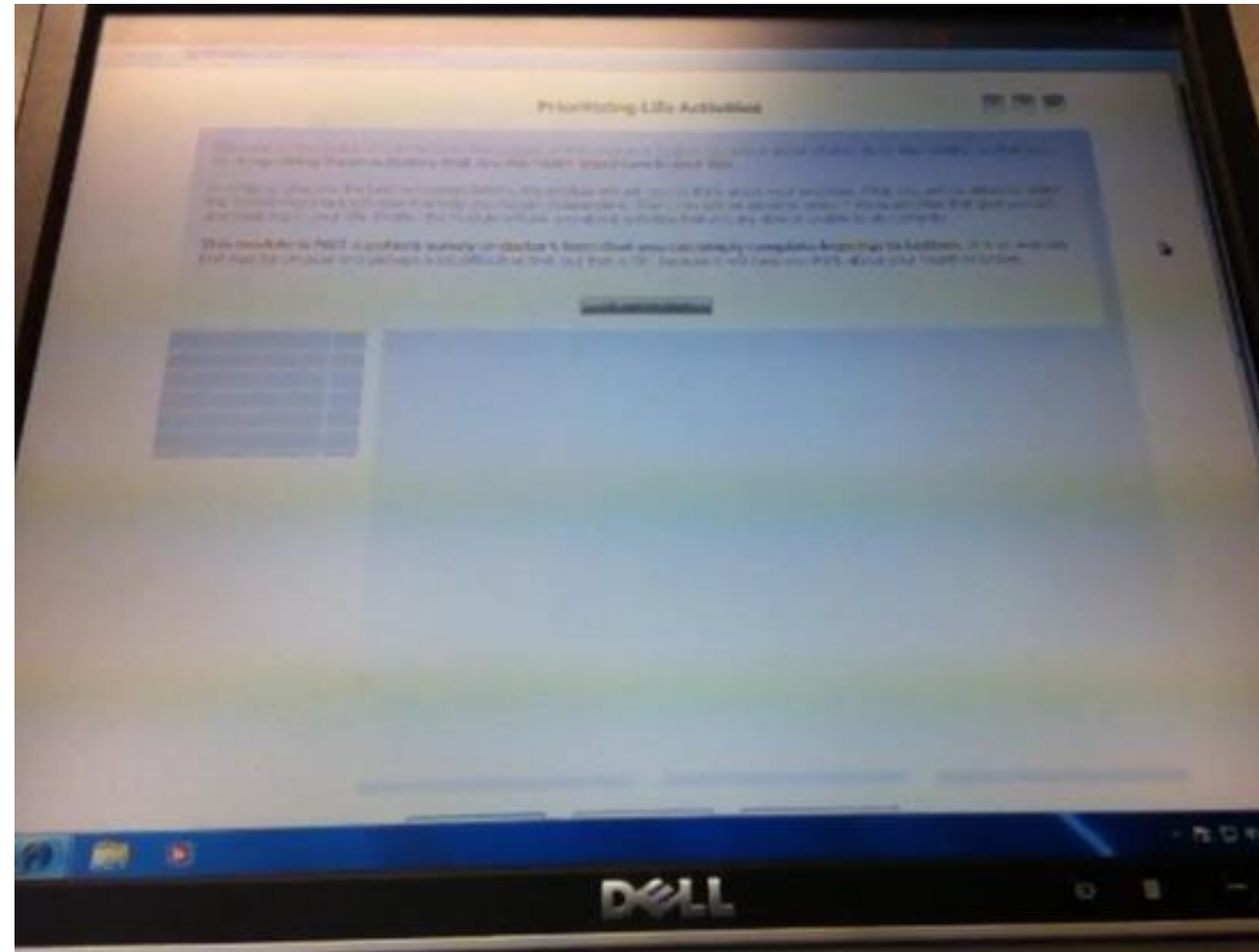
INTRODUCTION SCREEN

- Introduction screen added

Welcome to the Quality of Life Module! The purpose of this module is to give you advice about what to do to stay healthy, so that you can **keep doing those activities that are the MOST important in your life.**

In order to give you the best recommendations, the module will ask you to think about your priorities. First, you will be asked to select the 3 most important activities that help you remain independent. Then, you will be asked to select 7 more activities that give you joy and meaning in your life. Finally, the module will ask you about activities that you are able or unable to do currently.

This module is NOT a patient survey or doctor's form that you can simply complete from top to bottom. It is an exercise that may be unusual and perhaps a bit difficult at first, but that is OK, because it will help you think about your health priorities.



THEMES: USABILITY

- “easy to navigate...”
- “easy to read and select...”
- “I did not know what to do next...”
- “I thought I had to select 1 per column...”
- “the font size could be increased...”

THEMES: USABILITY

■ **Presentation/Design**

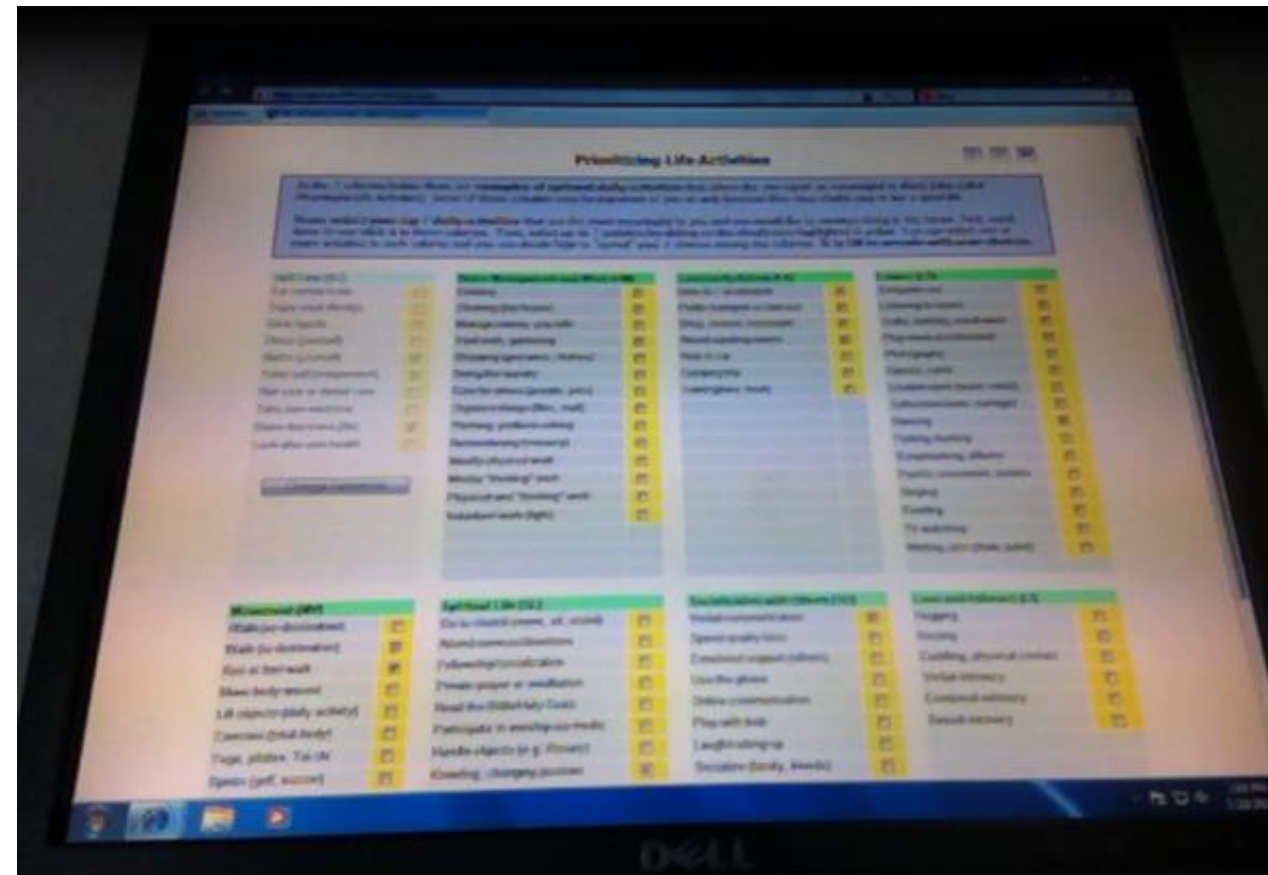
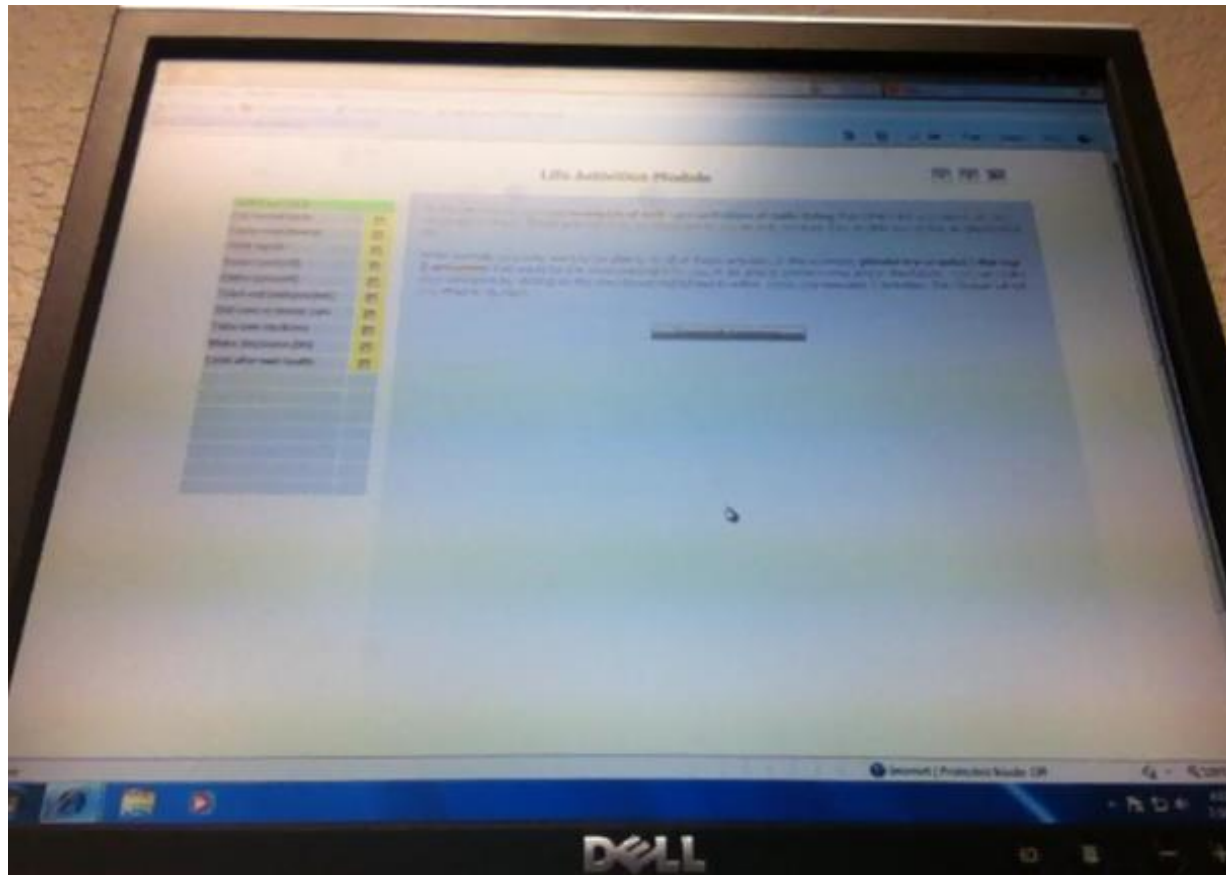
- Print button placed at bottom of report
- Make the color scheme and design of report card more appealing
- Separate ADLs from IADLs sequentially, but leave the option of correcting selections
- Adding Prompt asking if user is satisfied with selections
- Underscore that 1 choice/column is optional or leave this example out

■ **Ease of Use**

- Emphasize font resizer that was added in 2013
- Add choice counter to orient user to number of selections left
- Instructions stay visible through exercise

SEPARATION OF IADLS FROM ADLS

- Selection Counter added
- Instructions improved for clarity

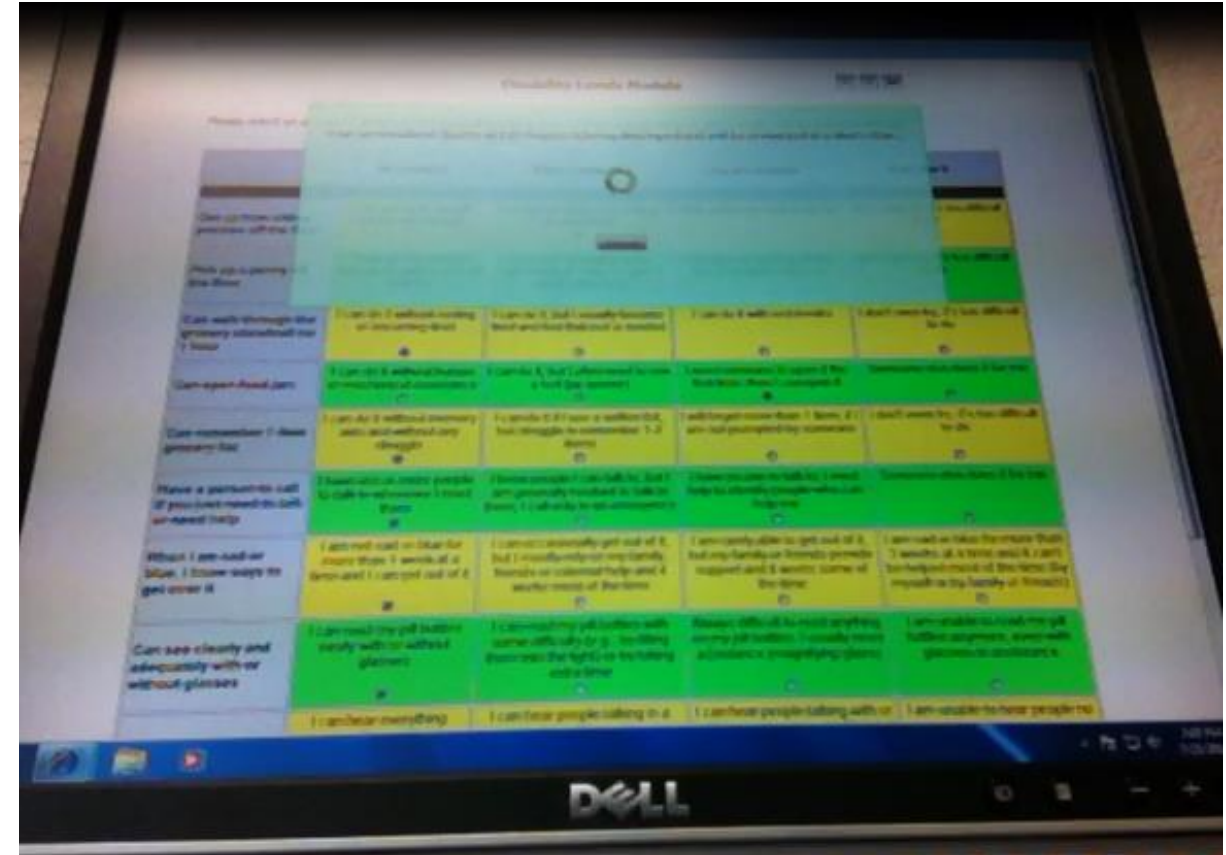
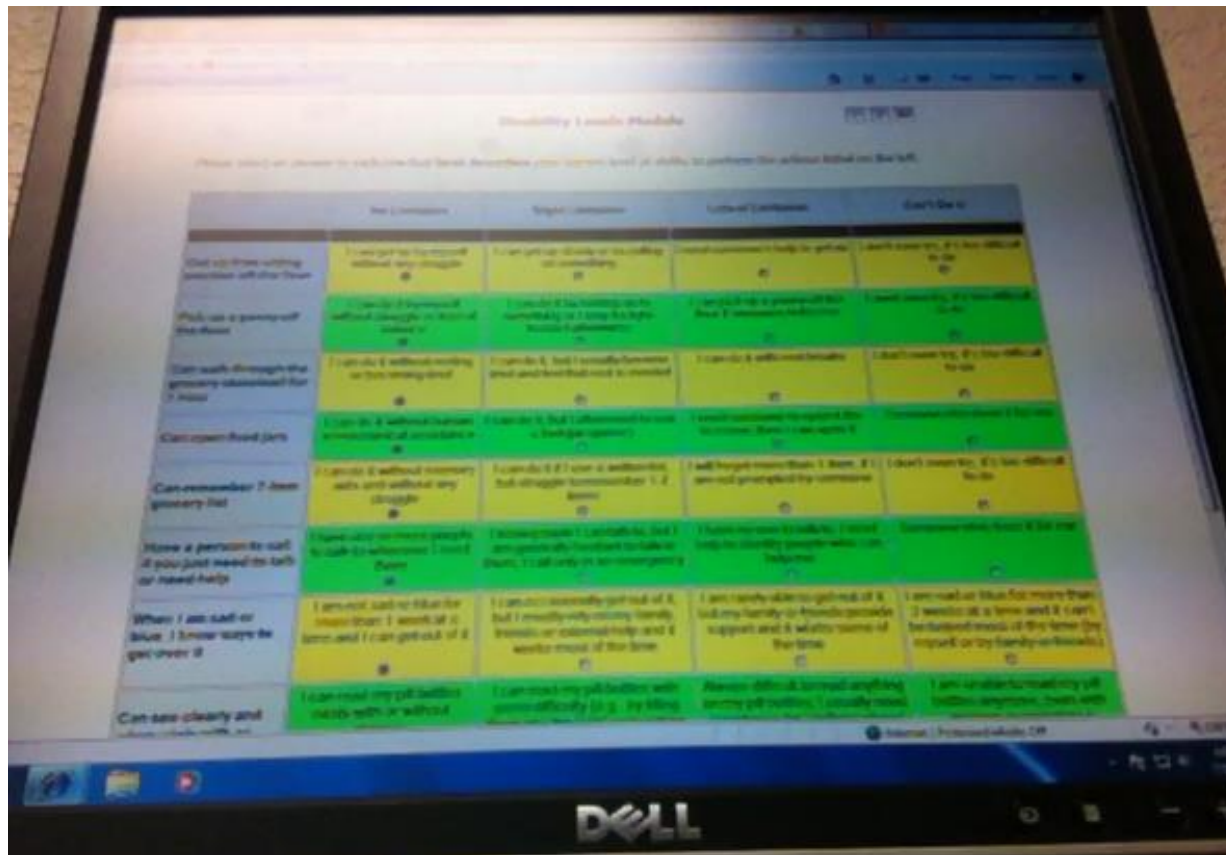


THEMES: LITERACY

- “it was higher than 7th grade language...”
- “I had issues with scrolling...”
- “I did not know what to do next...”
- **Reading literacy**
 - Further simplify wording by changing expressions and more complex words
 - Explain with or without glasses options on disability screen more clearly
- **Computer literacy**
 - In addition to all improvements, think about a personalized support approach for those in Tier-I computer literacy group (eg. Clinic process or family members)
 - Touch screen, single-button mouse

ABILITIES SCREEN

- Further simplify wording
- “Report is being developed and will appear soon”

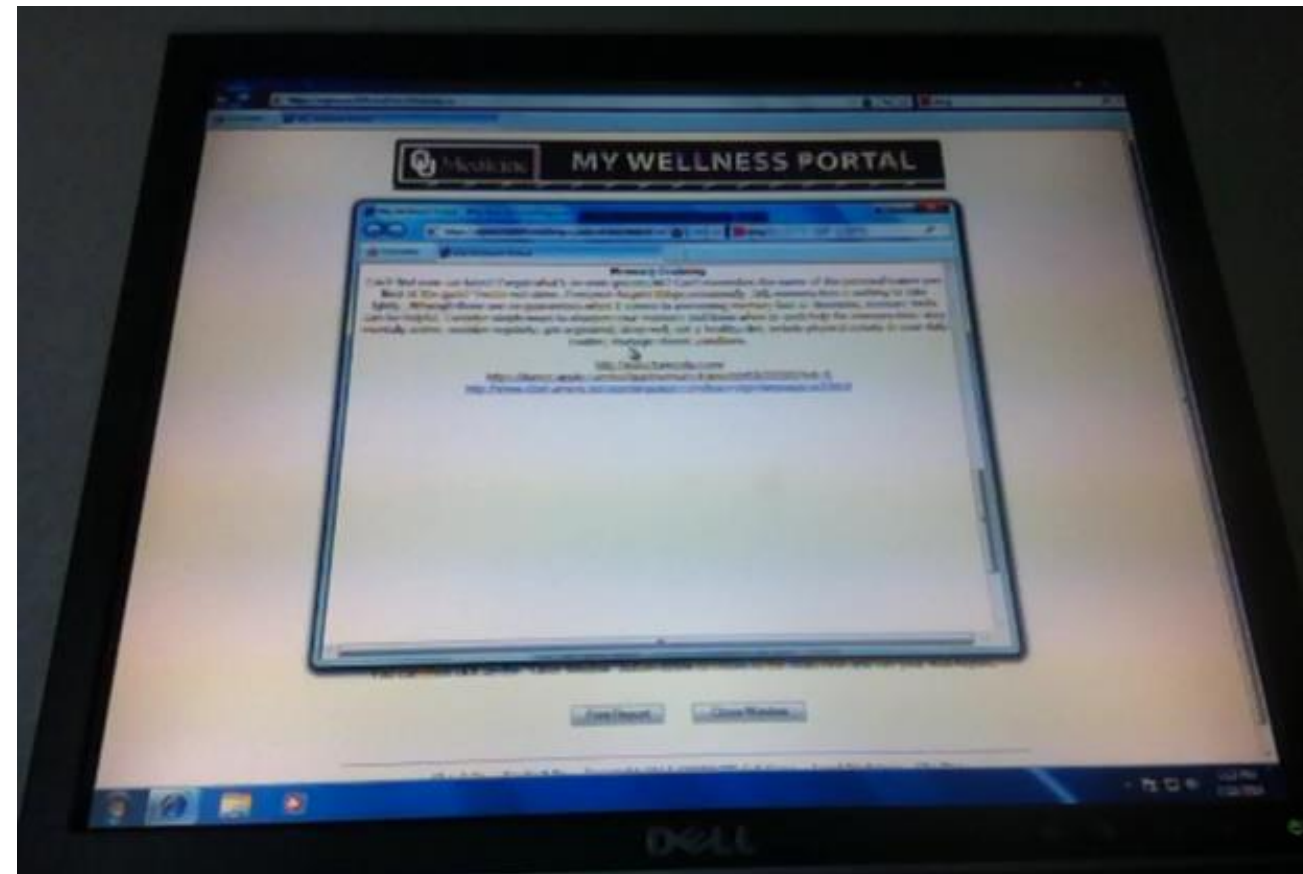
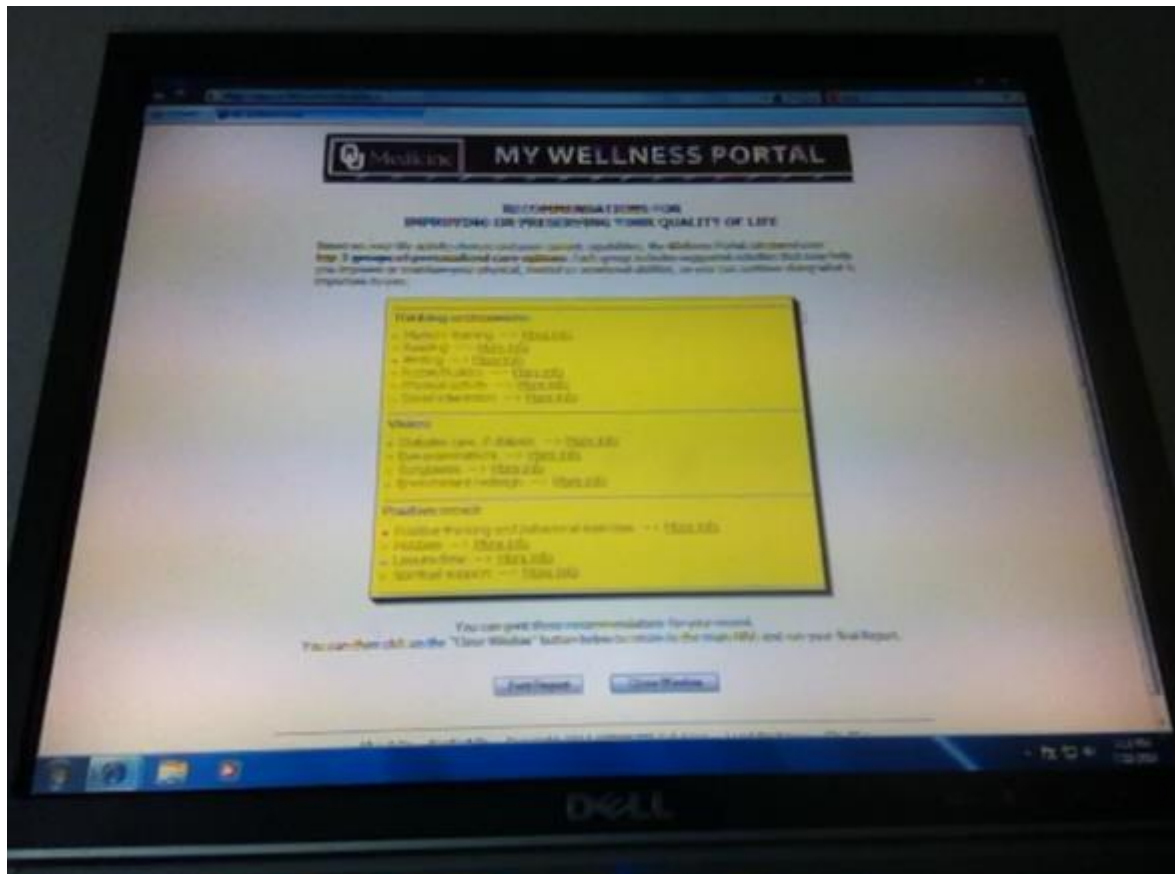


THEMES:VALUE OF THE MODULE

- “I did not care about the recommendations...”
- “I found the information very good and relevant...”
- “I did not see an option to indicate that I am not spiritual...”
- “The Report did not capture my attention...”
- “it would be good to discuss this report with my doctor”
- Further improve the breadth of resource links (e.g., add apps and more sites for games)
- Add a print button (see Usability) and further strengthen relevance of resources
- “More Info” kept hidden except for selected recommendation but with option to view all recommendations
- Add other ability categories such as pain, gait, flexibility...

REPORT SCREEN

- Improve and add resource links
- Improved appearance of the Report



THEMES: MOTIVATION

- “I saw what was important. Like walking, you just take that for granted. There for the last five years, he couldn't hardly walk. You just take it for granted.”
- “I used to play a lot of sports but got hurt... It's interesting, make you think about what you're really wanting in life, what you're looking for in life. How you wanna stay healthy and stuff...and active.”
- **Baseline motivation level and readiness for change**
 - Eventually add a readiness to change section to the HRQoL module
- **Personal and family life context (almost all participants!)**
 - Perhaps these stories can be leveraged by the clinician or health coach to better link the HRA recommendations to the goals of individuals and make them more relevant

NEXT STEPS

- Develop a trigger within the HRA that will direct certain people to complete the HRQoL Module
 - Self-Reported within the HRA:
 - Satisfaction with life (10-point scale)
 - Perception of overall health (5-point scale)
- How to incorporate the module into the current HRA
 - Whether it should be combined with the main HRA report or kept separate (how to present it, if it is combined)
- Conduct a pilot effectiveness study to measure patient outcomes



QUESTIONS?