

# User Testing Report: Critical Fix... Topic Resources

University of Michigan Health System  
eLearning

Juliana Stange  
Usability Specialist  
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## Executive Summary

As part of an ongoing effort to improve the user experience with the eLearning online education system, a team of two usability specialists conducted user testing for the process of enrolling in and accessing a mandatory. A brief study on label terminology was also observed. This report discusses the findings from the user testing as well as user based data for implementing the tested changes. Summarized below are the main points supporting implementation, followed by the terminology study findings.

## Paper Prototype Test

The tested changes made to eLearning proved to aid the users in completing their mandatory. Users proceeded through the process comfortably and more quickly without a lot of frustration or confusion.

These improvements should be implemented to the system to better support users' needs and expectations. The following are some of the observations noted during the user tests which support implementation.

- Users moved through the enrollment process smoothly and efficiently.
- Users clicked appropriate links without much hesitation.
- Users felt they were proceeding in the process.
- Frustration and confusion was minimal.
- Time spent in the enrollment process was greatly reduced.
- No users got "stuck" in the Topic Resources version of the material.

## Label Terminology

Based on user feedback the following changes should be made to the tested labels/pages.

- **Alphabetize course titles in the Catalog.**  
Most users commented that the Catalog section would be easier to read and use if the courses were listed alphabetically. Reordering these items increases user friendliness and encourages users to explore the courses.
- **Re-label the Quick Start tab.**  
Half of the users who were asked about the Quick Start tab thought that it would take them to their mandatory. Re-labeling this tab reduces the likelihood of users getting confused.

## Description of Test

For the first part of the user test, four users were given the task to register in and access the “Fire Safety for Non-Clinicians in Patient Care Areas Learning Module and Quiz 2007” learning module materials using paper prototypes representing the eLearning website. There was one moderator and one note taker present for every user test. Each user was presented a series of paper screen shots of the eLearning system. The user proceeded through the process by indicating what they would click and the moderator presented the user with the next screen shot. The results of the test were documented with click-track notes, audio recording, and opinion data.

During the second part of user testing, the same four users were presented with a screen shot of the Catalog section, with navigation removed, and a screen shot of the Learning Plan page. On the Catalog screen, users were asked what the group of information meant to them. On the Learning Plan page, users were asked what they expected to find under the Quick Start tab at the top of the page. The purpose of these questions was to identify users’ expectations and to gather information on what terminology would best represent what they visualized for each section.

<i>Date of testing:</i>	May 25, 2007
<i>Testing location:</i>	User’s office or available computer workstation
<i>Number of users tested:</i>	4
<i>Length of each test:</i>	Average 15 minutes
<i>Platforms tested on:</i>	All users tested on Windows operating system
<i>Browsers tested on:</i>	All users tested on Internet Explorer

## Test Tasks

1. Which of these would you choose to complete your required fire mandatory?
2. Register for the activities you chose.
3. Access the required materials.

## Paper Prototype Test

Changes to the eLearning system which were testing in this study include:

- Removing the Topic Resources button from the Learning Activity Details page.
- Unlinking the top link, which leads to Topic Resources, on the Learning Plan page after the user is enrolled.
- Removing the Topic Resources button from the Learning Activity Details page for the learning module/quiz.

## Implementation of Changes

Three of the four users tested moved through the enrollment and access process smoothly and efficiently. These users clicked the appropriate links without much hesitation or thought, and felt they were proceeding uninterrupted toward their goal.

The changes mentioned above proved to aid the users in successfully completing their task in a timely, more direct manner. Frustration throughout the process was minimal, and the three users who accurately proceeded were neither confused nor frustrated.

## Issues to Consider

During the user testing, two issues were uncovered. Though these issues are minor and did not impede the user to the point of them not completing the mandatory, they should be considered for improvement.

- **Double enrollment.**  
With the Topic Resources buttons and links removed, it becomes clearer to the users that they are enrolling twice, for what they feel is the exact same thing. For most users, this was simply something they noticed and briefly questioned, and they continued on in the process.
- **Learning Activities Details page instructions.**  
Half of the users tested became confused when reading the Learning Activities Details page. When these users read the instructions for accessing the quiz, they immediately started searching for the quiz button. While this may be the user reading the instructions incorrectly, it should not be a point of confusion for them. Simplifying this section could improve user satisfaction and reduce confusion.

## Label Terminology

This section provides the screen shot view the users were presented with, recommendations, and user comments.

## Catalog

001	<a href="#">UMCL-60001</a>	
011	<a href="#">Subject</a>	Sub-Section
012	<a href="#">Target Audience (RN MD etc)</a>	Sub-Section
013	<a href="#">Area (area that authored the activity)</a>	Sub-Section
002	<a href="#">Browse Entire Catalog</a>	
ACES-10027	<a href="#">Create Doc Template Workshop</a>	Instructor Led Course
ACES-10028	<a href="#">Create Doc for Clinicians (Ambulatory Care)</a>	Instructor Led Course
ACES-10029	<a href="#">Care Web Notifications for Clinicians</a>	Instructor Led Course
ACES-10049	<a href="#">Create Doc for Medical Assistants (Ambulatory Care)</a>	Instructor Led Course
ACES-10050	<a href="#">CareWeb Notifications for Medical Assistants in Ambulatory Care</a>	Instructor Led Course
ACES-10060	<a href="#">Red Call Process - Learning Module and Quiz (Renewal)</a>	AICC/SCORM Web Based Course
ACES-10062	<a href="#">InfoView</a>	Instructor Led Course
ACES-10063	<a href="#">Peripheral IV Access: Initiating Therapy for Ambulatory Care Nurses</a>	Instructor Led Course
ACES-10064	<a href="#">Introduction to Online Pavor Systems for Specialty Care</a>	Instructor Led Course
ACES-10070	<a href="#">Introduction to Online Pavor Systems for Primary Care</a>	Instructor Led Course
ACES-10073	<a href="#">IDX Function 49 - Eligibility/Referral Inquiry Training</a>	Instructor Led Course
ACES-11025	<a href="#">CareWeb for Clerical Staff</a>	Instructor Led Course
AMBU-10001	<a href="#">Diabetes Educational Series</a>	Instructor Led Course
ANES-10000	<a href="#">Sedation Privileging for Non-Anesthesiologists</a>	Blended Activity
BATA-ADMIN	<a href="#">OMP Web Based Training DO NOT USE</a>	AICC/SCORM Web Based Course
CACR-10001	<a href="#">Study Coordinator Workshop (SCW)</a>	Instructor Led Course
CACR-10002	<a href="#">Brown Bag Clinical (BBC) Series</a>	Instructor Led Course
CACR-10005	<a href="#">Administrative Standard Operating Procedures (SOPs)</a>	AICC/SCORM Web Based Course
CACR-10006	<a href="#">Clinical Data Management Standard Operating Procedures (SOP)</a>	AICC/SCORM Web Based Course
CAVC-10000	<a href="#">Passion for Excellence - Module I</a>	Instructor Led Course
CAVC-10001	<a href="#">Passion for Excellence - Module II</a>	Instructor Led Course

## Recommendations

Based on user feedback the following changes should be made to the Catalog page to improve usability.

- **Alphabetize course titles.**  
Several users articulated that the list of courses should be in alphabetical order. One user indicated that having them in alphabetical order makes classes easier to schedule, the other users simply needed the list in a digestible order.

## User Comments

When asked to form a concept or a term around the group of information, users came up with the following.

- Index of Courses
- Courses
- Inservices
- Register for classes or continuing education classes
- All available classes in eLearning

## Quick Start

The screenshot displays the 'eLearning' portal interface. The main content area is titled 'Learning Plan for Marvin Smith' and features several tabs: Summary, Plan Details, Certifications, Transcript, Class Schedule, and Print Report. The 'Summary' tab is selected, showing a table of learning activities. The table is divided into 'In Progress' and 'Planned Learning' sections.

Code	Title	Status	Available Hours	Action
SAFE-20072	<a href="#">Fire Safety for Non-Clinicians in Patient Care Areas Learning Module and Quiz 2007</a>	In Progress		<a href="#">LAUNCH</a>
<b>Planned Learning</b>				
Code	Title	Requirement	Due Date	Action
COMP-10000	<a href="#">UMHS Compliance for All Staff Certification</a>	Required	Jun 3, 2007	
	Required by <a href="#">LMS-1000 Compliance for Usability Test Accounts</a>			
SAFE-20073	<a href="#">Fire Safety for Non-Clinicians in Patient Care Areas 2007 Certification</a>	Required	Jun 3, 2007	
	Required by <a href="#">LMS-1001 Fire for Usability Test Accounts</a>			
SECU-10000	<a href="#">Critical Incident Review Certification</a>	Required	Jun 3, 2007	
	Required by <a href="#">LMS-1002 Critical Incident for Usability Test Accounts</a>			
OCAx-10007	<a href="#">Patient Safety for All Staff except Medical Clinical Faculty and House Officers</a>	Required	Jun 3, 2007	

## Recommendations

Based on user feedback the following changes should be made to the Quick Start button to improve usability.

- **Re-label Quick Start.**  
Half of the users thought Quick Start contained instructions while the other half expected it to take them to their mandatory. Because half of the users thought it was something other than instructions, a clearer label is needed to prevent users from mistaking it for something else. No label suggestions were given by users.

## User Comments

When asked what was expected when the Quick Start tab was clicked, users responded with the following.

- It takes them where they were supposed to be – Learning Plan
- Something to simplify the process
- Directions
- Explanation of how to move through the system
- Goes to a page that lists mandatories

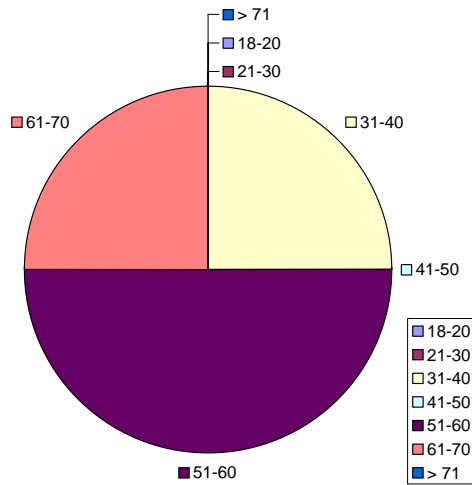
## User Statistics

Statistics were collected from all users in the form of demographic, survey, and task data. Data analysis was performed on all areas to extract interesting patterns in user behavior. Patterns and statistics of interest are presented in this section in both graphical and statistical formats.

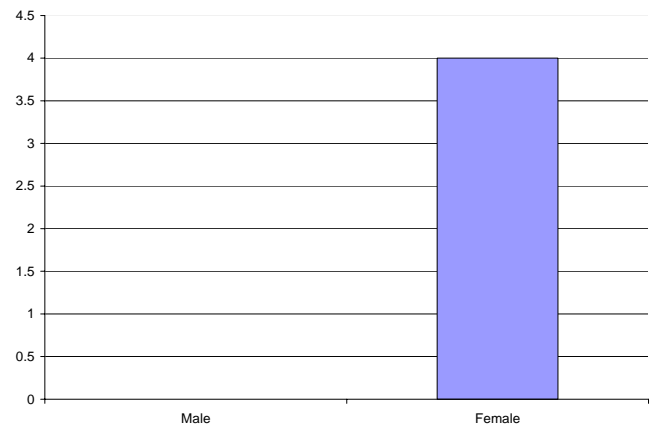
### Demographic Data

Each user was given a demographic survey at the start of the user test. The following graphs illustrate the compilation of this data.

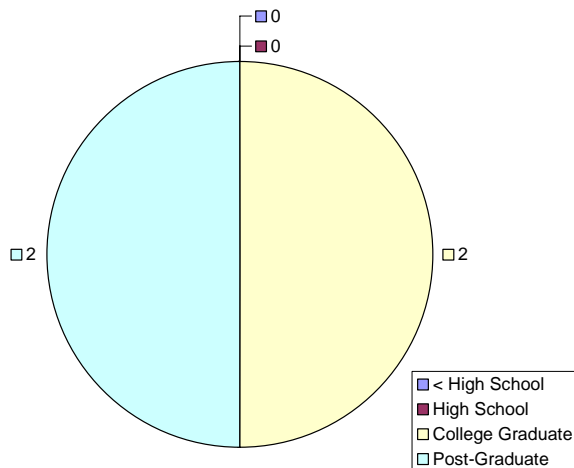
#### Age



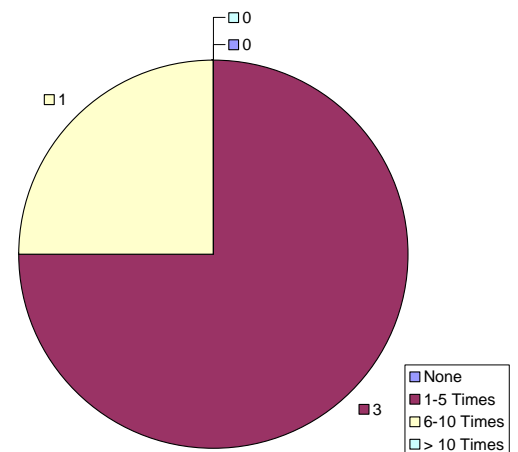
#### Gender



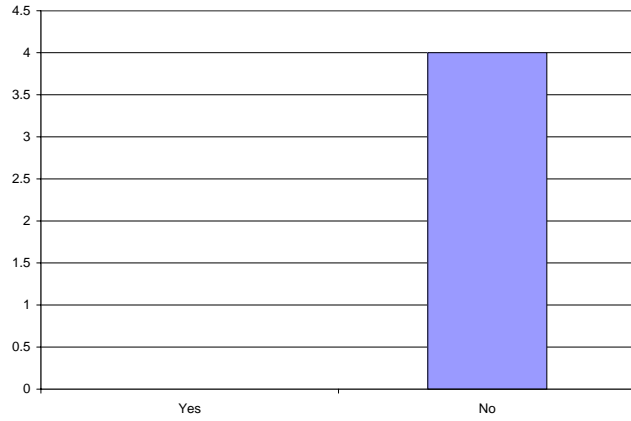
#### Education



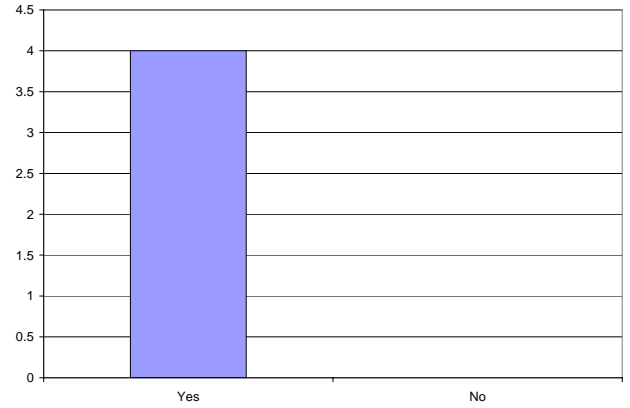
#### eLearning use in previous 12 months



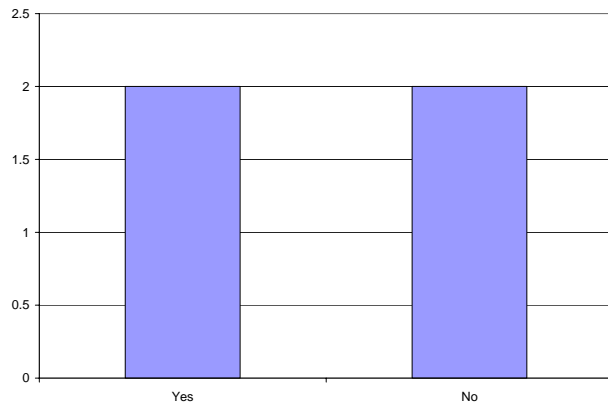
### Colorblind



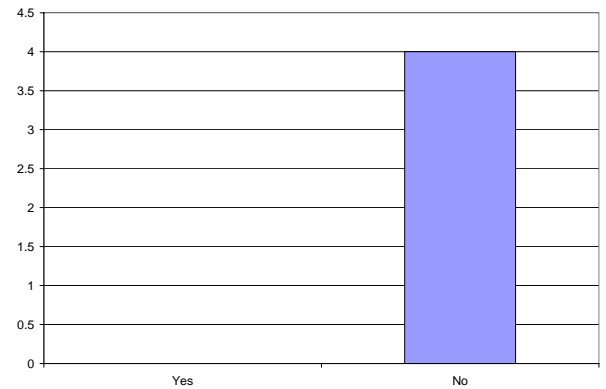
### Computer access at work



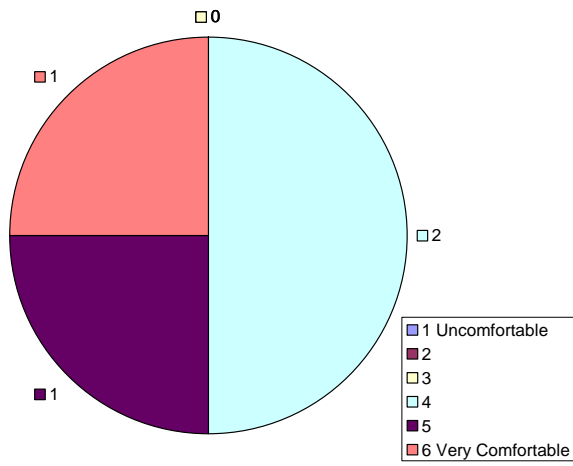
### Access to eLearning from home



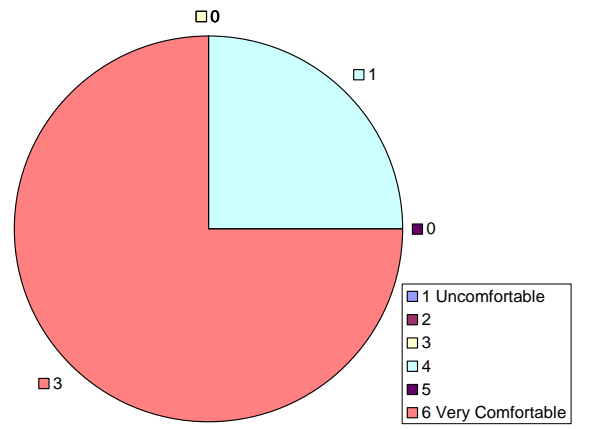
### Disability that limits mouse/keyboard use



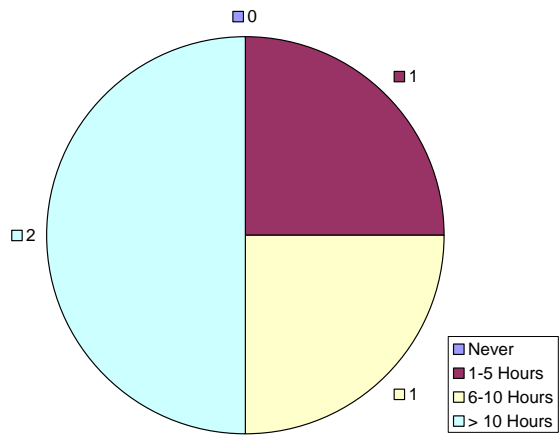
### Comfort level – computer use



### Comfort level - internet use



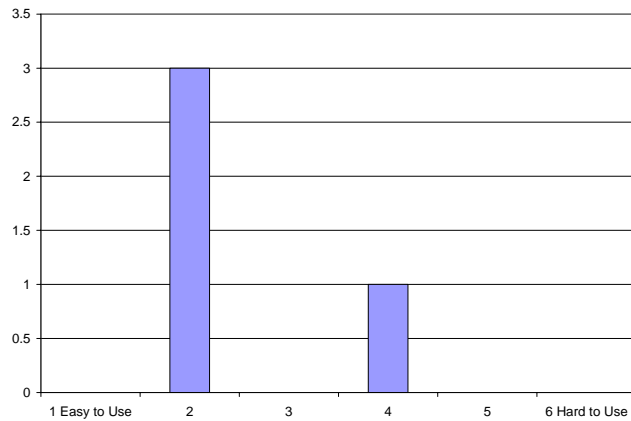
### Weekly internet use



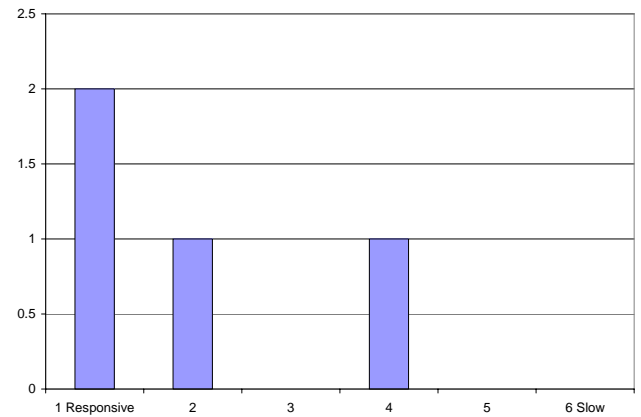
## Evaluation Survey Data

Each user was given an overall evaluation survey at the end of the paper prototype test. The following graphs illustrate the compilation of this data.

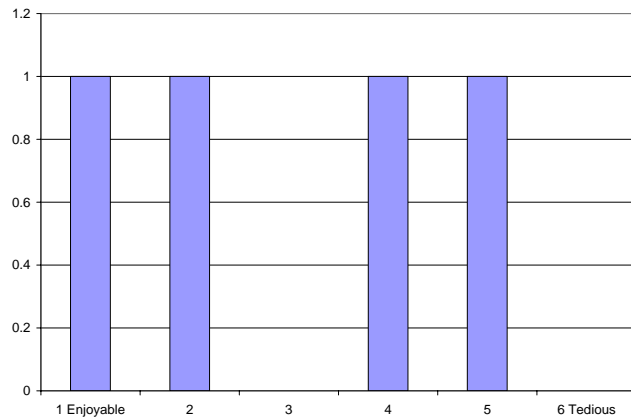
### Quality of Experience (Easy to Use vs. Hard to Use)



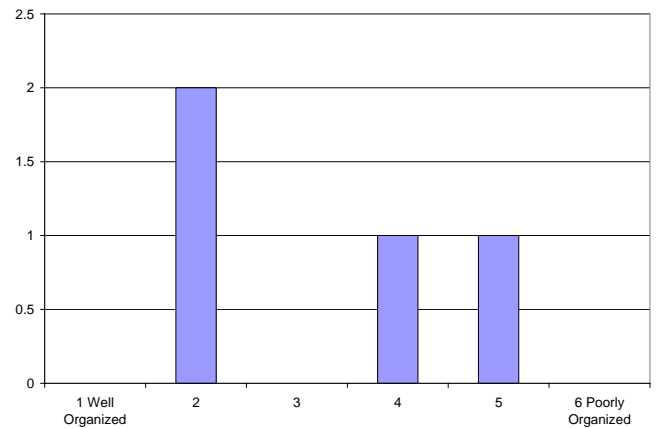
### Quality of Experience (Responsive vs. Slow)



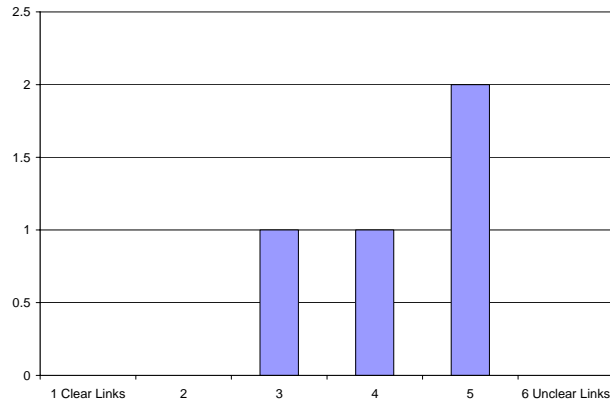
### Quality of Experience (Enjoyable vs. Tedious)



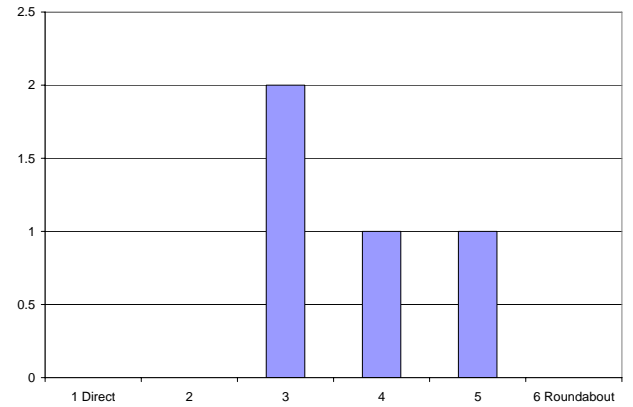
### Navigation (Well Organized vs. Poorly Organized)



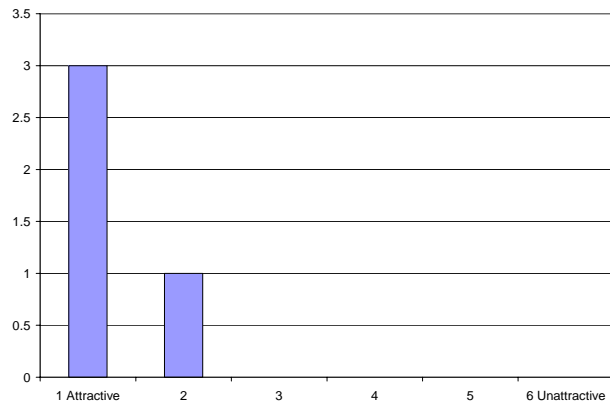
### Navigation (Clear Links vs. Unclear Links)



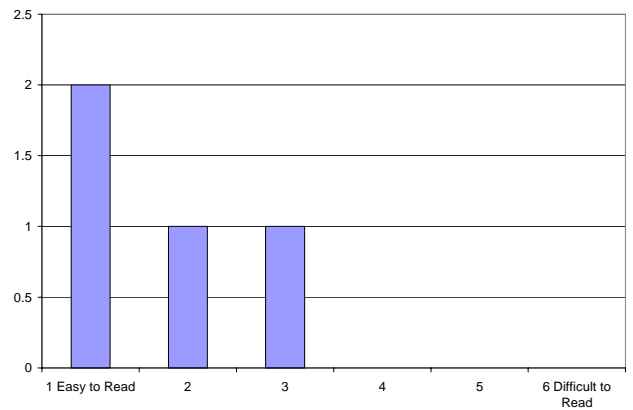
### Navigation (Direct vs. Roundabout)



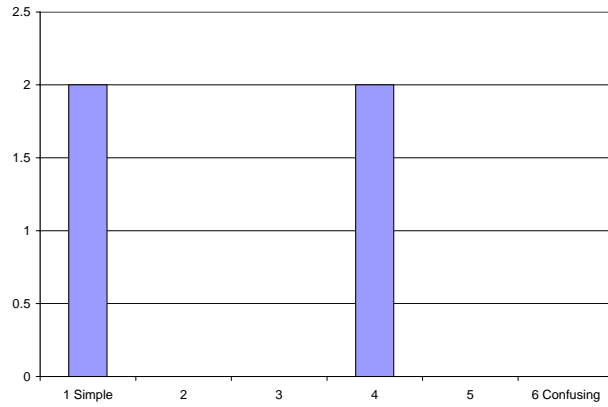
### Layout and Appearance (Attractive vs. Unattractive)



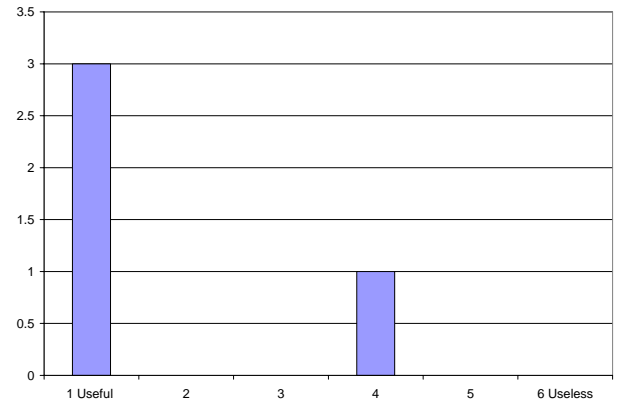
### Layout and Appearance (Easy to Read vs. Difficult to Read)



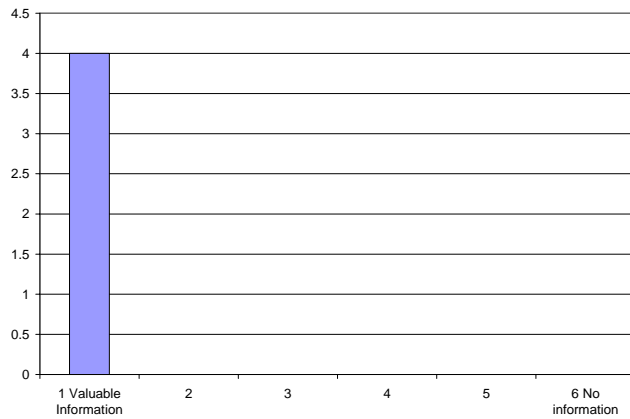
### Layout and Appearance (Simple vs. Confusing)



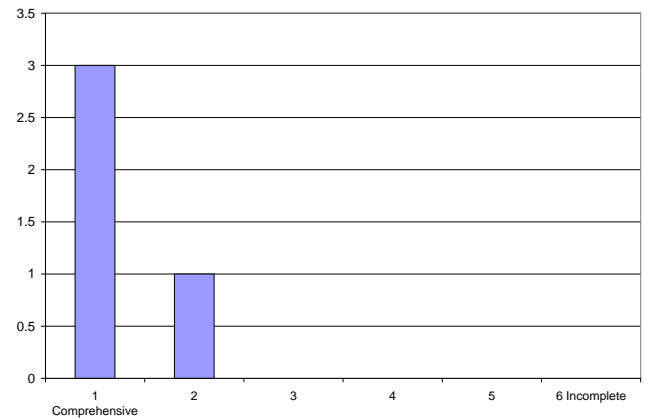
### Content (Useful vs. Useless)



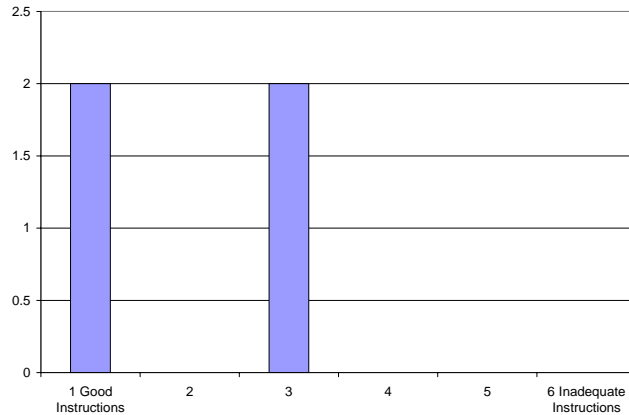
### Content (Valuable Information vs. No Information)



### Content (Comprehensive vs. Incomplete)



## Content (Good Instructions vs. Inadequate Instructions)



### What do you consider the most valuable aspect of eLearning?

- It's an excellent reminder about safety and patient care!
- The education and review on items that may not be used on a daily basis.
- My own information.
- Easy to access and flexibility of when to access.

### What is the biggest problem with eLearning?

- Still somewhat confusing to enroll and launch.
- Needs to be user friendly.
- There are times when steps are not clear or wording to the person using is different than the computer screens intention.
- Navigation thru screens.

## Task Data

Statistics are provided for those areas where data analysis of the tasks revealed interesting patterns in user behavior. The current eLearning systems' statistics from previous user testing are represented as "previous" within each new statistic, where applicable, to provide a comparison.

### Process

<b>75%</b>	Users who hesitated or articulated they were confused by having one status say "enrolled" (Topic Resources) and the other say "unenrolled" (module/quiz).
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<b>0</b>	Users who got stuck in the Topic Resources version of the module. Previous: 46%
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<b>25%</b>	Users who indicated they would need to access help in some form while attempting to complete their task. Previous: 54%
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### Clicks

<b>11</b>	Maximum number of clicks users needed to access the correct version of the materials. Previous: 27
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<b>8</b>	Average number of clicks users needed to access the correct version of the materials. Previous: 14
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<b>7</b>	Minimum number of clicks users needed to access the correct version of the materials. Previous: 6
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## Prompts

<b>25%</b>	Users requiring prompts during the test to bring them back on task. Previous: 46%
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<b>.75</b>	Average number of prompts given during the test to bring a user back on task. Previous: 3
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## **Appendix A: Supporting Documents**