Executive Summary

Introduction

My product is the design for an eLearning website on animal anatomy and physiology. It is an entirely new application; the initial screen designs were developed for this study. The scope of the design was limited to the anatomy and physiology of the heart in the dog.

The website is geared toward the high school student or undergraduate who wants to work with animals in some capacity, such as a veterinarian, a veterinary technician or technologist, or a veterinary researcher.

A Competitive Analysis on anatomy and physiology eLearning websites for both humans and animals was performed in order to select resources for a Heuristic Evaluation. Twelve resources, including websites and a DVD, were chosen. Jakob Nielsen's 10 Heuristics methodology was used for the Heuristic Evaluation. Design ideas for my website came from the high scoring resources in the Heuristic Evaluation as well as anatomy and physiology books.

The purpose of this study was to test clarity of terms, icons, and organization, and ease of navigation. The method employed was Interviews using a paper prototype with blank pages. Two interview sessions were held. The first interview session was conducted with two participants on Thursday, December 2, 2010. The participants evaluated the product by completing five tasks and answering both closed and open ended questions after each task and at the end of all tasks. The second was also conducted with two participants on Tuesday, April 5, 2011, and was videotaped. Additional post-task questions were added for the second interview session. I also showed a prototype screen to a Graphic Designer on Saturday, December 11, 2010 for evaluation.

Findings and Recommendations

Interview participants had no problems completing tasks which entailed use of the left side bar. They found the navigation, terms and organization very easy to use. They did, however, have more difficulty completing tasks accessed through the tabs. During session 1, I observed the participants search for the information in the left sidebar and across the top of the screen. During session 2, participants also searched for the information in the left sidebar first. It wasn't until all options in the left side bar were exhausted that participants looked to other parts of the screen.

The Graphic Designer found the overall grid design to be very good, but found that some of the icons did not read optimally; specifically, the **Cross Section** icon and the animated diagram icon. The diagram and discussion icons also were "too cryptic".

My recommendations are:

- Keep the left sidebar as designed.
- Move the tabs to the right sidebar area.
- Redesign the **Cross Section** and animated diagram icons.

The Method

Interviews were conducted using a paper prototype and blank pages as described by Still and Morris in their paper, *The Blank Page Technique: Reinvigorating Paper Prototyping in Usability Testing* (IEEE Transactions on Professional Communication, Vol. 53, No. 2 June 2010), and a page with all functionality was shown to a Graphic Designer. The prototype was developed as a wireframe with Adobe Illustrator. Illustrator-generated JPEGs of the paper prototype for session 1 can be found in Appendix 3A; those for session 2 (which are different from those used in session 1) can be found in Appendix 3B.

For the interviews, each participant was given five tasks to complete with my paper prototype plus blank pages. After completion of each task, I asked one or two closed end questions. For session 2, I added a closed ended question to the post-task questions. After completion of all the tasks I asked mainly closed ended questions, but a couple of open ended questions too to get insight into other thoughts the participants may have.

For presentation to the Graphic Designer, I presented the prototype page and elicited feedback and reactions.

Purpose

The purpose of this study was to answer the following questions:

Are participants easily able to navigate to specific information?
Do participants understand terms and icons used?
Do participants understand the organization of the site?

Product

This study impacts the initial wireframe developed for an entirely new eLearning website on animal anatomy and physiology. The wireframe was limited to the anatomy and physiology of the heart in the dog.

The Participants – Study 1

Two participants were interviewed for this study. Both are undergraduates in their sophomore year at Ramapo College in New Jersey majoring in Biology.

In addition, I consulted with a Graphic Designer.

The Participants – Study 2

Two participants were interviewed for this study. Both are undergraduates at New Jersey Institute of Technology, Newark, NJ. One participant is a senior majoring in Biology, the other a junior in Biomedical Engineering.

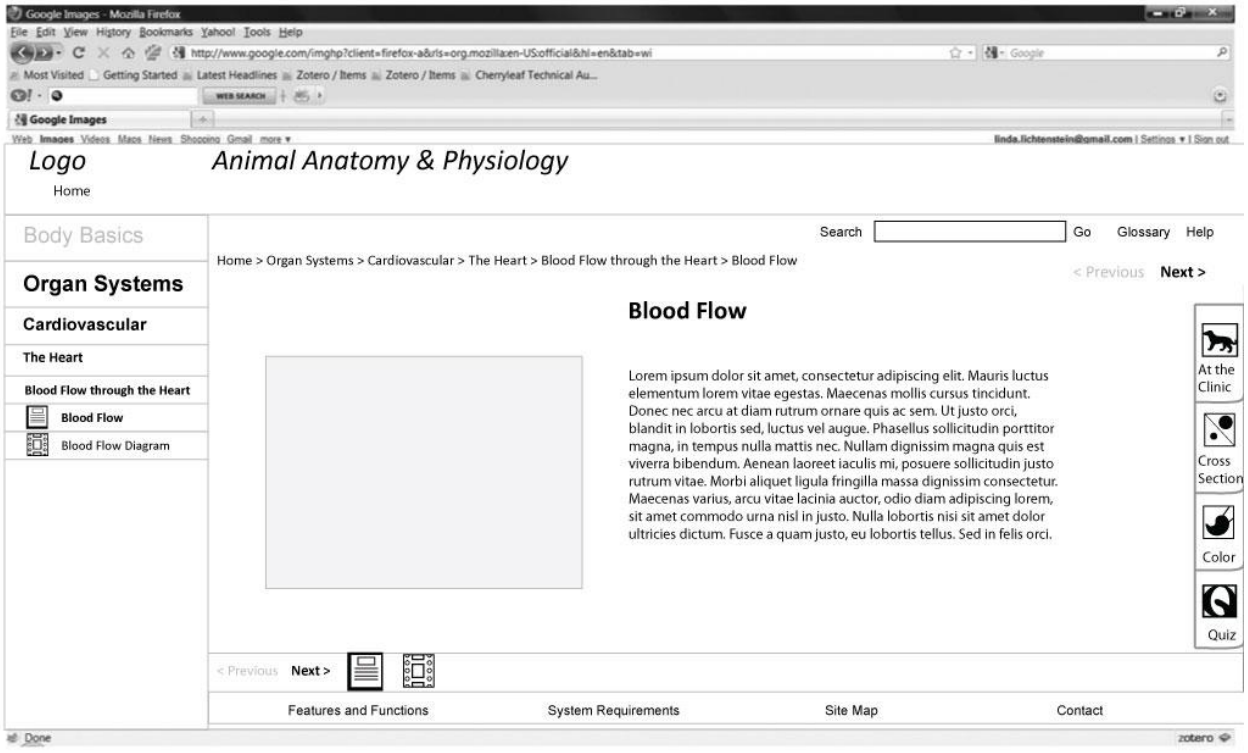
Key Findings

Overall, the interview participants found the website design easy to navigate and understand. They did, however, have difficulty locating the special function tabs located at the lower right part of the wireframe.

The Graphic Designer found the overall grid design to be very good, but found some of the icons did not read fully as intended.

Recommendations

My recommendations are to keep the left sidebar as designed; but, conduct further testing to determine the best way to integrate functionality in the tabs. One possible redesign, move the tabs to the right side, is below. Another recommendation is to redesign the icons. The diagram and **Cross Section** icons were redesigned as shown below, but further testing is required.



Possible location for special function tabs and icon redesign