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Laker Books

Testing Plan

**Usability Testing**

A group of students will be tasked with doing numerous things through the website such as buy a textbook, sell a textbook, rate the person whom they bought or sold a textbook to and other things. This will be used to make sure the main functionality of the application is clear and users do not need to do much thinking to understand how to use the website.

-5 students were used as test subjects for the usability testing

-The testing instructions given to each participant can be found in the document “Usability Instructions”

**Results:**

Initial Question: Did you feel like you understand the purpose of the website after having only looked at the homepage?

* 100% of the test subjects knew it was used to buy and sell textbooks
* 40% of the test subjects clicked on “How It Works” to get more information
  + One individual pointed out that there should be a short general explanation to what the website does before the “For Buyers” & “For Sellers” sections.
  + This general description was added to the “How It Works” section as a result of this individual’s comment.

Usability Testing Part 1: Please attempt to sell a used textbook named Java. It is the 6th edition of the textbook and is by Herbert Schildt, for $30.00.

* 100% of the students were able to post the correct textbook on Laker Books.
* 80% of the students were confused as to how things would work now that the book had been posted.
  + As a result of this finding, the JavaScript success message at the very top was altered to include “You will receive an email once someone buys your textbook.” This was done so people understand that they do not have to come back to the website and that they will be receiving an email.

Usability Testing Part 2: Please attempt to buy a textbook that has the ISBN 9780262033848 for $20.00.

* 100% of the students were able to buy the correct textbook.
* 100% of the students were confused as to what would happen now that they had bought the textbook.
  + As a result, just like I added something to the success message when selling a textbook, I added “Please check your SUNY Oswego email for instructions.” to the success message when buying a textbook.

Usability Testing Part 3: You have now bought a book from another SUNY Oswego student named Antoine Saliba. However, while discussing where to meet to trade the book for the money, he decided to increase the price to $30.00. You do not think this is right since you have agreed to buy the book for $20.00. Please attempt to report user [asaliba@oswego.edu](mailto:asaliba@oswego.edu) on Laker Books.

* 100% of the subjects were able to report the user successfully.
* It took most people approximately 3 seconds to find the “Report User” section at the very bottom.
* One student had no idea what to do for about 10 seconds before finally seeing it at the bottom.
  + Considering no one clicked on any of the other buttons, I did not feel like changing the “Report User” section was needed. This reassured me that everyone was labeled correctly and not confusing.
  + I believe that the fact that the user has only a few options will make it easy for most people to find the “Report User” section.

Final Question 1: Would you feel comfortable using this site to sell or buy textbooks?

* 60% of the students answered yes.
* 20% of the students who did not say yes said they would be willing to try it and see how comfortable they felt.
* 20% of the students thought it would be creepy and make them uncomfortable.
  + While planning this application, I knew this website would not be for everyone. I also knew that there were some aspects that might make people uncomfortable such as meeting people they had never met. However, based on these numbers, it is very encouraging that most of the students would feel comfortable or at least willing to try out the application.
  + This application fills a niche in the textbook business and it is expected that it does not accommodate everyone.

Final Question 2: What did you like about the website?

* 60% of the subjects wrote down that they liked the simplicity of the website.
* 20% of the subjects said they liked the clean look of the website.
* 20% of the subjects stated they liked the colors used.
* 40% of the subjects said it was easy to use.

Final Question 3: What did you dislike about the website?

* 80% of the subjects wrote down nothing.
* 20% of the subjects believe it should be safer

**Fault Testing**

Symbols and other things that one would not normally do in the website will be used to see how the website responds to them. The website should always indicate something to the user such as an error message if something is not correct that indicates to the user what went wrong. Each field that the user can enter something in will be tested with a group of ten inputs to make sure the application responds appropriately.

**Results:**

* 25 random numbers and letters were inputted in the search field. The application responded by displaying the correct page requesting the edition.
* 12 numbers were inputted in the search field. The application responded by displaying the correct error message.
* A space was put after the 13-digit ISBN number of a specific textbook. The application responded by displaying the page that asks for the edition of the textbook. This showed that the application thought the input was not an ISBN since there was a space in it. To make the application correctly identify the input as an ISBN, I made sure to remove any spaces in the input before checking if it is an ISBN. If not, an unedited input is used as the title.
* When prompted for the edition, I added “th” or “edition” to the end of the number. This returned an error saying no information was found regarding the textbook I had entered instead of correctly finding the textbook. To prevent this error from occurring, I only take the number from the input and disregard everything else before doing a search.
* When prompted for the author, if the full name of the author was given instead of just the last name or first name, the application responded with an error saying no information as found regarding the textbook I was searching for. The expected behavior was for it to find the correct textbook and display it on the screen. This occurred because the API and the database hold the author’s name with the last name first, followed by a comma and ending with the first name of the author. This is different from having the first name followed by the last name so it did not recognize it as a result. To prevent this error from occurring, I took only the first word entered in the author field. This way, it does not matter whether the first or last name is inputted first.

**Functionality Testing**

Will test the database by adding and removing items from the database and making sure the ones added can all be retrieved and the ones removed are displayed properly in the database. Then, the selling functionality will be tested by testing over 30 books, some of which will have the same name and others which will have different names, conditions and prices to make sure the selling functionality works correctly and the appropriate messages appear when something wrong has occurred. The same thing will be done with the buying functionality. Over 30 books will be searched for and some will be bought to make sure the bought items trigger emails to be sent out and the application to correctly handle the books being bought and not appearing as results any longer.

**Results:**

* Over 30 textbooks from numerous different majors such as Computer Science, Cognitive Science, English, Math and Geology were posted on the website.
* Over 15 textbooks from numerous different majors were bought from the website and all transactions were successful and the emails were successfully sent.
  + Books that had symbols such as “&” symbols could not be found in the API or database because they used the written out “and” form instead of “&”. To prevent no results from being found, the title is checked to see if it has any “&” symbols in it, if it does they are replaced with “and” instead.
  + Science books that were entered by title returned results in eBook form or with access codes. This was a problem because books entered by title should only return the result with the physical book. To prevent them from being the result shown, the results with the access code or eBook format were not taken into account, even if they matched the title. The only way to sell and buy a textbook with an access code is to enter the exact ISBN. This was done to make sure only those looking for that exact thing got back that result. This prevents people with just the textbook from posting an inaccurate posting because the title returned information on the book with the access code instead of just the textbook.