

Wisconsin Dairy Council

Website Usability Report



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Wisconsin Dairy Council

Background



- The Wisconsin Dairy Council is the nutrition education branch of the Wisconsin Milk Marketing Board (WMMB).
- The WMMB is a non-profit organization founded in 1983 by the dairy farmers of Wisconsin, and is fully funded by Wisconsin's dairy farm families.
- Throughout the state, the Wisconsin Dairy Council consists of regional program managers who work with school foodservice staff and teachers to promote the nutritional benefits of dairy products for students.



**WISCONSIN MILK
MARKETING BOARD**
WISCONSIN DAIRY PRODUCERS



Dairy Council Mission & Objectives

Mission Statement & Objectives

The Wisconsin Dairy Council's stated mission is to *"help grow the demand for Wisconsin milk by providing programs that enhance the competitiveness of the state's dairy industry."*

The group is a non-profit coalition of elected farmer board members who manage the organization's marketing and promotional programs.

The group utilizes an array of promotional resources, programs, and merchandising tools--forming a comprehensive marketing organization, capable of reaching every link in the state and national food-marketing chain.





Research Objectives & Scope

- The overall objective of our research is to determine how the user's experience of the client's website (wisconsindairyCouncil.com) affects the achievement of their primary message.
- As a marketing and educational institution, ease of access to programs, materials, and online store are the main goals.
- This project will be focused on organizational solutions for the client's existing site, in order to create a more comprehensible structure based on user experience.

The scope of this research was conducted by four researchers over a three-month period. They will give recommendations for the client's site based on their findings of their research methods which include competitive analysis, heuristic evaluations, and usability testing.

User Personas

| | | |
|---|--|---|
| Student <ul style="list-style-type: none">• K-12• Current/Potential Dairy program participant | The student would like to learn about programs and contests they can participate in, as well as dairy nutritional facts. | <ul style="list-style-type: none">• Look for different dairy contests they can participate in• Go to nutritional page to find health information• Watch videos about dairy product production |
| Parent <ul style="list-style-type: none">• Has K-12-aged child• Interested in dairy health | Parents need to find nutritional information about dairy products. They will also be seeking information about Student activities sponsored by the Council. They are interested in health and fitness information for their children. | <ul style="list-style-type: none">• Find nutritional information on dairy products• Find dates/times of Council programs• Find contest information for children |
| Educator <ul style="list-style-type: none">• Food service staff member• Teaches students about the dairy industry | The Educator and Food Service member is in search of resources to share with students. The Educator is interested in programs and contests the WDC is offering for schools and students. In addition, they are looking to gather dairy nutrition information to make informed decisions about dairy products for students. | <ul style="list-style-type: none">• Acquire resources for education purposes• Gain knowledge of dairy products• Gain information about programs, field trips and contests• Contact the WDC |
| Nutritionist <ul style="list-style-type: none">• Fitness Coach• Meal Planner | Interested in creating meal plans for their clients/themselves and wants to make sure that they are making well informed recommendations regarding dairy nutrition. | <ul style="list-style-type: none">• Find nutritional information on dairy products• Find educational materials related to nutrition |

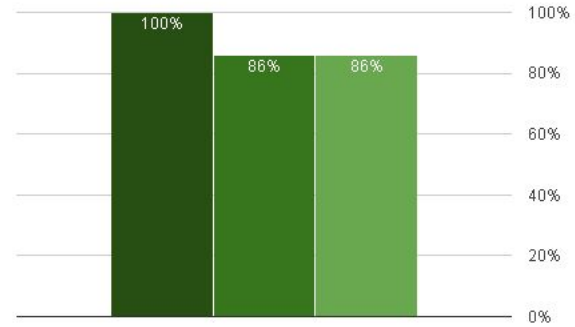
User Personas

| | | |
|---|--|--|
| Dairy Consumer <ul style="list-style-type: none">• Cheese Lover• Interested in health aspects• History of dairy products | This dairy consumer is interested in learning more about dairy nutrition and the process from farm to consumer. | <ul style="list-style-type: none">• Look at health and nutrition facts• Play with Chocolate Milk Comparison Tool• Search for different dairy companies• Search for different dairy products |
| Dairy Producer <ul style="list-style-type: none">• Large-scale dairy farmer• Cheese Seller• Dairy group leader | The dairy producer would like to be added to the list of dairy companies, on the website. They would also like to view information of other dairy companies. | <ul style="list-style-type: none">• Go to Wisconsin dairy catalog to find other dairy companies/producers• Make sure they are listed on the website.• Contact the WDC |

Participant Demographics

For the purposes of this study, the needs of the above personas were *assumed* by our participants. Our test users consisted of a group of seven students currently enrolled in programs related to web development.

Usability Research Methods



- Competitive Analysis
- Heuristic Evaluation
- Card Sort
- Usability Testing

Method:

Competitive Analysis



Dairy Max
dairymax.org



Dairy Council California
healthyeating.org



Washington Dairy Council
nutrition.eatsmart.org

Method: Competitive Analysis

Objectives

This study is designed to gain knowledge of competitor practices and ensure that our client is maintaining practices consistent with industry standards. This analysis is intended to identify aspects of the client's website which *could* be modified to improve site accessibility, usability, and organization.

Analysis Questions

- Is the website up to industry standards?
- Which aspects of the site are visually appealing or unappealing?
- Are features easy for a user to access?
- Are pages understandable and easily usable?
- What is the overall feel of the site?
- Is the user able to easily navigate to pages they have seen before?
- What is distinct about the client's site?

Method: Competitive Analysis

Procedure

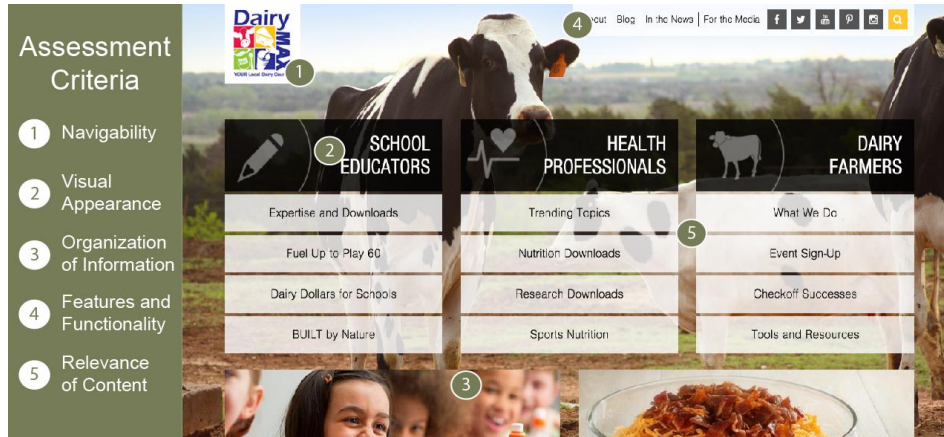
Our researchers compared three industry sites representing the Wisconsin Dairy Council's competition:

- **Dairy Max**
 - *dairymax.org*
- **Dairy Council California**
 - *healthyeating.org*
- **Washington Dairy Council**
 - *nutrition.eatsmart.org*

These sites are reviewed under the following criteria:

- Navigability
- Visual appearance
- Organization of information
- Features and functionality
- Relevance of content

Competitive Analysis: *Dairy Max*



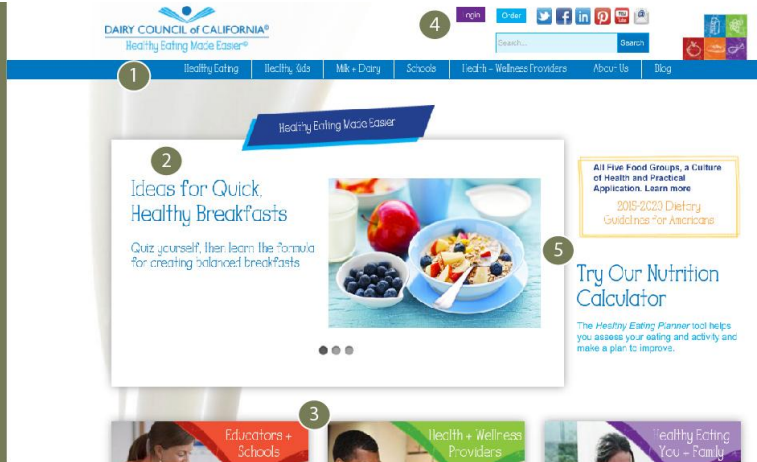
Recommendations

- Avoid overuse of images and animation. The site has an impressive appearance initially, but this creates a negative user experience in the long run.
- Adopt a more familiar navigation scheme.
- Avoid having categories of the blog outside of the basic blog page. The categories can be easily navigable from there.
- Create a Contact Page.

Competitive Analysis: *California Dairy*

Assessment Criteria

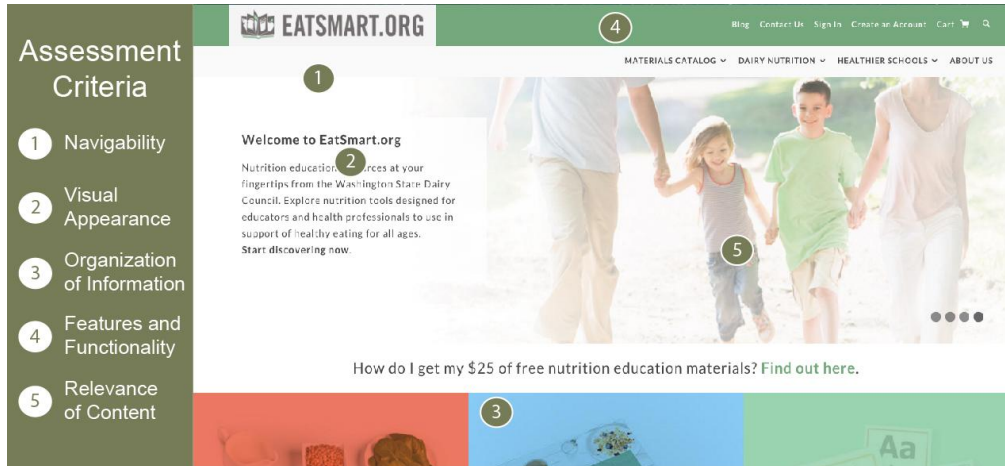
- 1 Navigability
- 2 Visual Appearance
- 3 Organization of Information
- 4 Features and Functionality
- 5 Relevance of Content



Recommendations

- Reorganize and consolidate site information, simplify the main navigation and labels.
- Increase font-size and leading of type across the entire website.
- Audit content to simplify and decongest the large, overwhelming areas with a lot of content.
- Improve cohesion of content layout between pages.
- Ensure link text is in a legible color.

Competitive Analysis: *Washington Dairy*



Recommendations

- Avoid stylistically-adopted features without specific design intent--see item 5.
- Adopt a policy of clearly defining stylistic traits for text, headers, hyperlinks, and titles.
- Avoid pale color palettes with low color contrast.
- Utilize a less cluttered navbar by developing a useful informational hierarchy.
- Encourage engagement with younger users, which are a target audience for many of the organization's programs.

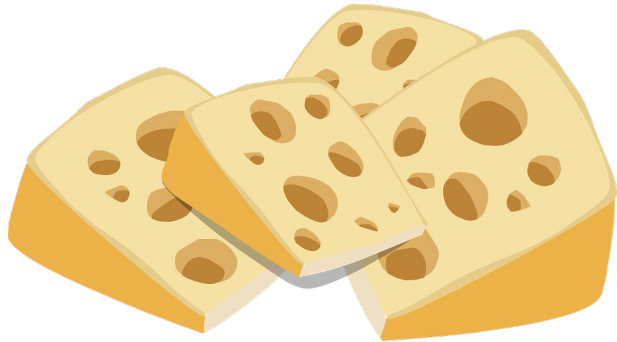
Method:
**Heuristic
Evaluation**



Method: Heuristic Evaluation

Objectives

In the Heuristic Evaluation, experts determined successes and challenges of the current website according to **Jakob Nielsen's Heuristic Principles**.



Procedure

Heuristic Evaluation is a common usability testing method. **A panel of experts will test the website's interface and report on the compliance with the recognized usability principles- heuristics**, as laid out by Jakob Nielsen.

The team has created **"User Scenarios"** for the experts to test. Within each User Scenario, there are two tasks for the expert to undertake.

As the experts attempt to complete the tasks, they will rate the usability using **Nielsen's 0-4 Rating Scale**.

Method: Heuristic Evaluation

10 Usability Heuristics for User Interface Design

by Jakob Nielsen

1. Visibility of system status
2. Match between system and the real world
3. User control and freedom
4. Consistency and standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
9. Help users recognize, diagnose, and recover from errors
10. Help and documentation

Method: Heuristic Evaluation

User Scenario A - Tasks

User is a **Physical Education teacher** who is trying to give students accurate nutritional information on dairy products. They would like to **procure educational materials** they can give students to enhance their curriculum.

User Task 1 (PDF)

- a. User will go to site <http://www.wisconsin dairycouncil.com/>
- b. **Navigate to free educational material catalog**
- c. **Find the document** labeled "Milk From Cow to You - Handout (1st Grade)
- d. **Open the PDF**

User Task 2 (Cart)

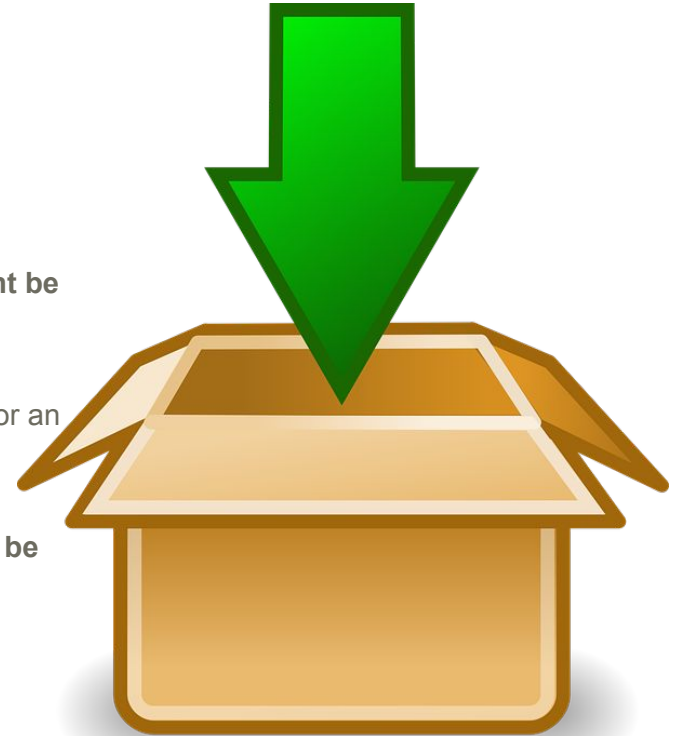
- a. User will go to site <http://www.wisconsin dairycouncil.com/>
- b. **Navigate to educational material catalog**
- c. **Add** 30 Dairy Snack Bar Recipe Bookmarks and 1 Growing a Healthy Wisconsin Poster to your **shopping cart**
- d. **View your shopping cart** and **delete** the Poster from your cart
- e. **Navigate to the home page**
- f. **View the items in your cart**

Method: Heuristic Evaluation

User Scenario A - Recommendations

User Task 1 (PDF)

- The **navigation of the current online catalog is fairly usable**. The search pagination and item-view processes are easy for the user.
- Approached from an educator's perspective, **some of these materials might be expected in the "Educators" section of the site**.
- The presence of **two nearly-identical search fields** increases the chance for an unrecognized user error--it is **recommended that these be combined**.
- It is advised that **materials available in download or download-only form be separated from mail-order materials**.



Method: Heuristic Evaluation

User Scenario A - Recommendations

User Task 2 (Cart)

Most concerns for this task centered around the usability and visibility of the “**Shopping Cart**” and “**Checkout**” features of this section.

- It is highly recommended that a **Cart section is added in a visible location**, and its status is readily visible (does it contain items?).
- It is also recommended that the cart section has an item-by-item “**remove from cart**” function.



Method: Heuristic Evaluation

User Scenario B - Tasks

User is a **dairy-loving parent** whose child wants to enter into **dairy contests**. As the child's meal planner, the user seeks comparative nutritional information on dairy products.

User Task 3 (Nutrition)

- a. User will go to site <http://www.wisconsin dairycouncil.com/>
- b. Go to Health & Nutrition page
- c. **Find chocolate milk comparison tool**
- d. **Compare nutritional data of energy drink to chocolate milk**

User Task 4 (Contest)

- a. User will go to site <http://www.wisconsin dairycouncil.com/>
- b. **They will go to the fuel up to play60 page**
- c. **Go to contests**
- d. **Find contest rules**

Method: Heuristic Evaluation

User Scenario B - Recommendations

User Task 3 (Nutrition)

For this task, the researchers found no major problems. A typical user should have no issues finding and using the Chocolate Milk Comparison Tool. The client should consider changing the navigation structure, for clarity and ease of use.



Method: Heuristic Evaluation

User Scenario B - Recommendations

User Task 4 (Contest)

- Researchers recommend that the **contest page be simplified and further organized**.
- Create more **definition between contests** and more **cohesive organization** of each contest sections information will take some guesswork out of the user's experience.
- **Links on the page need to be more clear** as to where they are taking the user. Some of the images in the contest sections are links, these links **need to be consistent** with links offered in the information section of each contest.
- **The heavy areas of content should be simplified.**
- The **overall navigability** from the individual contest pages/subpages to the main contest page needs to be easier and clear.
- **Side navigation should be updated** to prevent the user from needing to use the back button in their browser.



Method: Heuristic Evaluation

Conclusion

- **Overall, the site performed well**
- **Improve the functionality of the Shopping Cart and checkout**
 - Improve its visibility in the navigational structure and make its status visible.
 - A “remove item” function is also recommended.
- **Main navigation should be restructured**
 - Especially an issue for the categorization of Educators’ materials
 - The breadcrumb navigation was very helpful and should be maintained.
- **Contests task was made difficult because of poor organization**
 - Clarify the status of each contest (announced, accepting entries, closed, in-progress, ended)
 - Navigating to contest rules and entry pages was not clear.
 - The inconsistent links and destinations
 - Overwhelming text-heavy content decreased legibility.
 - Restructure and edit of the contest pages themselves would benefit the user experience greatly.

Method:
Card Sort



Method: Card Sort

Objectives

The Card Sort is intended to devise the organization and structure of the website information. The process enables groups of participants to arrange main website pages into categories they find logical. By doing this with many participants, we can derive generalized patterns users follow to navigate information. These patterns will be used to make recommendations for structural improvements to information, in a way that makes sense to the user.

Procedure

We conducted an **Open Card Sort** where the categories are not labeled. Once the participant has organized the topics into categories, they can label the categories with names that make sense to them.

We used a software called **Optimal Source**. The participants were able to drag and drop electronic “cards” into groups.

Once all the participants were finished with the Card Sort, the software gave us graphs and data. From these, we were able to extrapolate patterns and trends that a typical user may follow.

Card Sort: Content Labels

| URL | Page Topic | Label |
|---|--|--------------------------------------|
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/funding | Funding | Contest funding information |
| http://www.wisconsin dairycouncil.com/aboutus | About Us | Info on Wisconsin Dairy Council |
| http://www.wisconsin dairycouncil.com/terms | Terms & Conditions | Site Terms & Conditions |
| http://www.wisconsin dairycouncil.com/contact-us | Contact Us | Contact Wisconsin Dairy Council |
| http://www.wisconsin dairycouncil.com/school-foodservice/wisconsin-cheese-company-search/dairyingredientstep | Dairy Ingredients Step 1 | Dairy Ingredient Provider Finder |
| http://www.wisconsin dairycouncil.com/school-foodservice/wisconsin-cheese-company-search/VarietyStep1 | Search by Cheese Variety | Cheese Variety Finder |
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/resources | Resources | Contest Resources |
| http://www.wisconsin dairycouncil.com/Account/signup | Sign up | Site account Sign Up |
| http://www.wisconsin dairycouncil.com/free-materials-for-wi-schools/videos/cows-make-milk | Cows Make Milk: We Are America's Dairyland | Elementary School Educational Videos |
| http://www.wisconsin dairycouncil.com/sportsnutritionquiz | Sports Nutrition Quiz | Sports Nutrition Quiz |
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/mvp/student-ambassadors | Wisconsin Student Ambassadors for Fuel Up to Play 60 | Contest Student Ambassadors |
| http://www.wisconsin dairycouncil.com/school-foodservice/school-milk-suppliers | School Milk Suppliers | School Milk Suppliers |
| http://www.wisconsin dairycouncil.com/free-materials-for-wi-schools/MarketingMaterials | Free Online Materials for Wisconsin Educators and School Nutrition | Educator Material Catalog |
| http://www.wisconsin dairycouncil.com/free-materials-for-wi-schools/videos/ITO-chemistry-of-life | Into the Outdoors: Chemistry of Life | Middle School Educational Videos |
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/mvp/program-advisors | Wisconsin Program Advisors for Fuel Up to Play 60 | Contest Program Advisors |
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/contests | Contests | Contests |
| http://www.wisconsin dairycouncil.com/school-foodservice/school-breakfast | School Breakfast | Student Breakfast Resources |
| http://www.wisconsin dairycouncil.com/school-foodservice/strive-for-35 | Strive for 35 | Dairy Storage Information |
| http://www.wisconsin dairycouncil.com/school-foodservice/wisconsin-cheese-company-search/fluidingredientstep1 | Search for Fluid & Related Products | Fluid Dairy Product Provider Finder |
| http://www.wisconsin dairycouncil.com/educators/ag-dairy-field-trip-suggestions | Ag/Dairy Field Trip Suggestions for Wisconsin | School Field Trip Suggestions |
| http://www.wisconsin dairycouncil.com/free-materials-for-wi-schools/videos/the-art-of-cheesemaking--high-school | The Art of Cheesemaking Video - High School | High School Educational Videos |
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/resources/futp60video | Fuel Up to Play 60 Video | Contest Videos |
| http://www.wisconsin dairycouncil.com/educators/middle-school/rethink-your-drink | Rethink Your Drink | Middle School Educational Resources |
| http://www.wisconsin dairycouncil.com/Health-and-Nutrition/chocolate-milk-comparison-tool | Chocolate Milk Comparison Tool | Chocolate Milk Comparison Tool |
| http://www.wisconsin dairycouncil.com/Health-and-Nutrition/nutrition-links | Nutrition Links | Links to Nutrition sites |
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/contests/wheres-morgan-contest-rules | Where's Morgan Contest Rules | Contest Rules |
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/contests/kick-off-contest | Kick-Off Contest Entry Form - Fuel Up to Play 60 | Contest Entry Forms |
| http://www.wisconsin dairycouncil.com/school-foodservice/cold-milk-equipment-form | Cold Milk Equipment Form | Cold Milk Equipment Catalog |
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/contests/brain-break-contest/2015-winners | Brain Break Video Contest Entry Form - Fuel Up to Play 60 | Contest Winners |
| http://www.wisconsin dairycouncil.com/privacy | Privacy Policy | Site Privacy Policy |
| http://www.wisconsin dairycouncil.com/school-foodservice/wisconsin-cheese-company-search/compname | Company Name | Cheese Company Name Finder |
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/mvp | Most Valuable Players (MVPs) | Fuel up to play 60 |
| http://www.wisconsin dairycouncil.com/school-foodservice/wisconsin-cheese-company-search/butter | Butter | Butter Company Finder |
| http://www.wisconsin dairycouncil.com/Health-and-Nutrition/health-and-nutrition-facts | Health & Nutrition Facts | Nutritional Resources |
| http://www.wisconsin dairycouncil.com/fuel-up-to-play60/FUTP-SuccessStories | Fuel up To Play 60 - Success Stories | Contest Success Stories |

Card Sort: Similarity Matrix

Data Analysis

The *Similarity Matrix* groups data by percentage of participants who grouped the cards together. The darker the squares, the more frequently the cards were grouped together. For example, “Contest Rules” and “Contest winners” were grouped together 100% of the time, so the combination of them is a dark blue square.

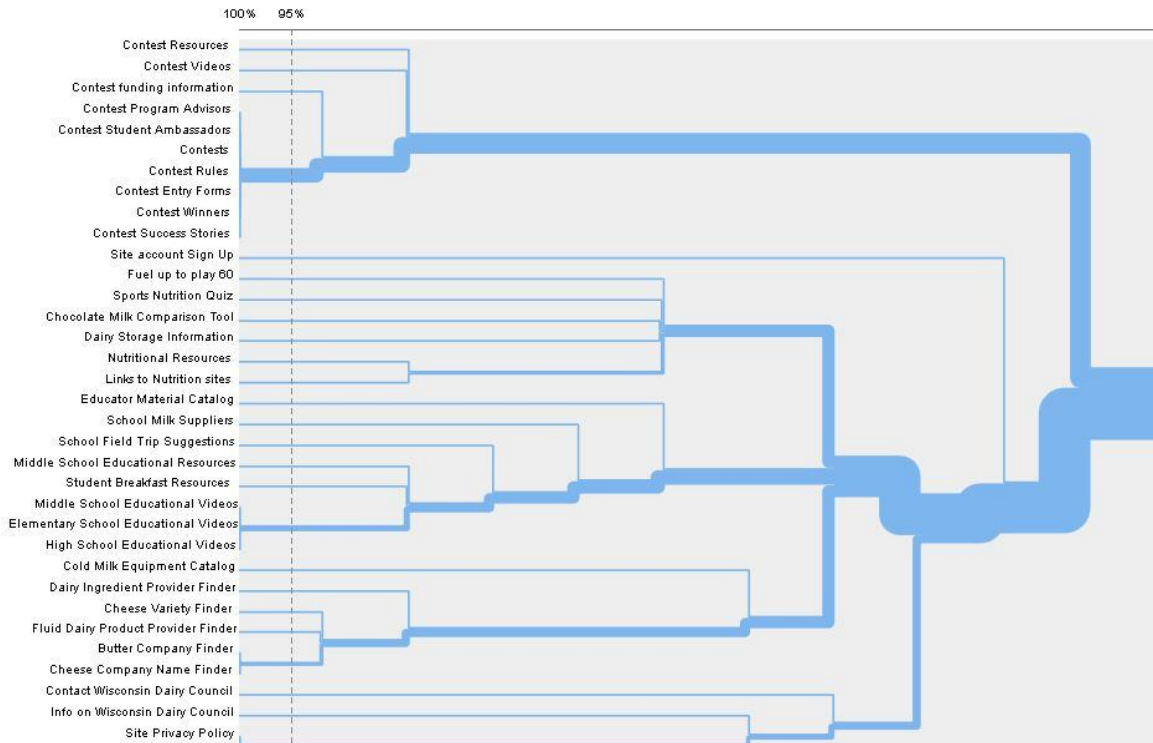
| Contests | | | | | | | | | |
|----------|-----|-----|-----|-----|-----|----|----|----|-----------------------------|
| 100 | | | | | | | | | Contest Entry Forms |
| 100 | 100 | | | | | | | | Contest Student Ambassadors |
| 100 | 100 | 100 | | | | | | | Contest Program Advisors |
| 100 | 100 | 100 | 100 | | | | | | Contest Rules |
| 100 | 100 | 100 | 100 | 100 | | | | | Contest Winners |
| 100 | 100 | 100 | 100 | 100 | 100 | | | | Contest Success Stories |
| 91 | 91 | 91 | 91 | 91 | 91 | 91 | | | Contest funding information |
| 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | | Contest Resources |
| 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | Contest Videos |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 Elementary S |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 100 Middle ! |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 100 100 LI. |

Similarity Matrix (section)

Card Sort: Dendrogram

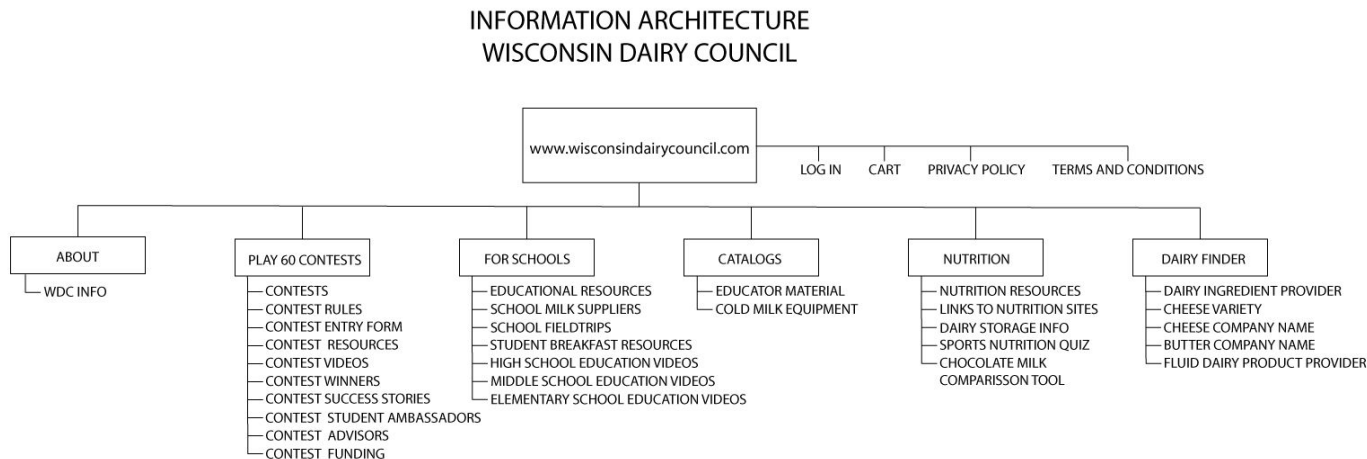
The dendrogram shows frequencies of groupings, as well as the category names that the participants gave to the groups.

This graph clusters the most consistent category groupings together. Since this was an Open Card Sort, where participants were able to choose their own category names, we were also able to infer names that would be familiar and logical to users.



Card Sort: Recommendations

It is the opinion of this research group that the Wisconsin Dairy Council adopt the information structure described in the chart below. Further, it is strongly recommended the main navigational bar of the Council's site be adapted to reflect this report's identified categories.



Method:
**Usability
Testing**



Method: Usability Testing

Objectives

The main objective for our usability research testing was to improve our understanding of how users interact with the Wisconsin Dairy Council website and where they felt the website does not meet their needs. More specifically, addressing the success or failure of the information architecture and navigational user pathways of the WDC website. The project was designed to determine whether users were able to easily access basic pieces of information and fully utilize website functionality.

Procedure

During this usability test, our research team conducted a total of seven individual testing sessions. Before they began, participants were asked to read and complete a consent form and pre-test questionnaire. Once the pre-test documents were completed participants were set up at a computer to begin the testing. Participants were asked to complete approximately 3 tasks using the think aloud protocol. This involves the participants vocalizing everything that they are doing, and why. Using this protocol allowed the researchers to follow the user's thought pattern. Upon completion of the tasks the participants filled out a post-test questionnaire where they evaluated and discussed their experiences with the website.

Method: Usability Testing

Logistics: The Usability testing was administered inside of a seattle central classroom. The administrator sat next to the participant as they performed the usability test. The administrator recorded the entire computer session, as well as documented any relevant information during the test.

Tasks:

Task #1:

- Find a nutritional comparison of chocolate milk and other beverages.

Task #2:

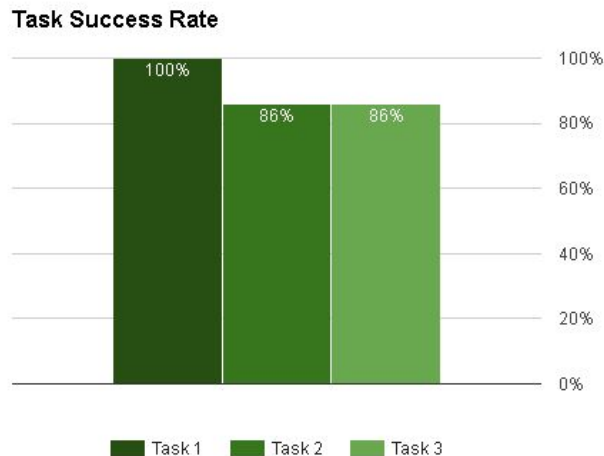
- Place two different educational resource items in your cart.
- Delete one of these items from your cart. Navigate to the home page. Then view the leftover item your cart.

Task #3:

- Without using the search tool, find the “Butter Companies” search page.

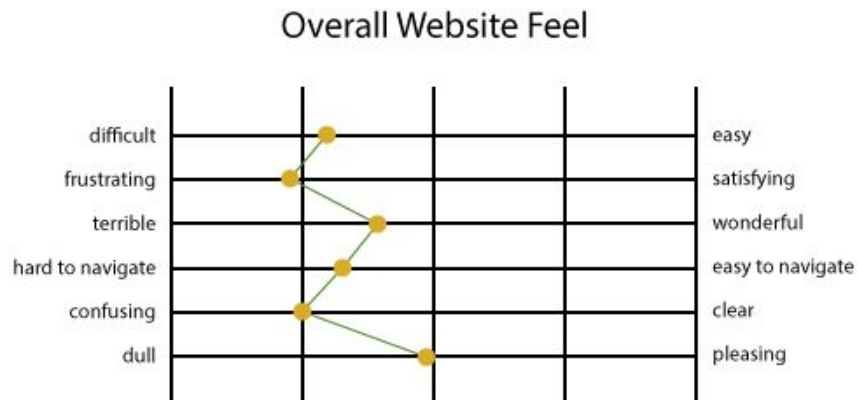
Usability Testing: Success Rate

The majority of the participants were able to successfully complete the three tasks during the usability testing session. All participants (100%) were able to complete task 1 (Chocolate Milk Comparison). 6 of the 7 participants (86%) were able to complete task 2 (Shopping Cart). Finally, 6 of the 7 participants (86%) were able to complete task 3 (Butter Companies).



Usability Testing: Overall Rating

Based on the feedback from the participants post-test questionnaires, the overall feel of the website was negative. Participants were frustrated with their experience and found it confusing to use. They were mostly neutral about the aesthetics of the website.



Usability Testing: Participant Inputs

Information Architecture

P2: "Rename labels for top tier pages."

P3: "Fuel up to Play 60 should be under Contest."

P3: "There should be a dropdown for Dairy Products first."

P4: "Repetitive links on homepage."

P5: "Information Architecture needs reorganized."

P7: "Terrible, not organized or intuitive."

Navigational Pathways

P1: "Shopping Cart user pathway needs improvement"

P5: "Pathways are easy to navigate if you are familiar with the content."

P7: "Not easy to figure out where you need to go to find information."

Aesthetics

P2: "Two thumbs up! But needs responsive work."

P3: "Branding clash between logo and design of the site."

P4: "Logo too small."

P5: "The feel of the site is refreshing."

P6: "Cart button doesn't match the rest of the design."



Usability Testing: Findings

| Finding | 1 | 2 | 3 | 4 | 5 |
|---------------------|---|--|---|--|---|
| Problem | Link to user shopping cart non-existent and/or in an unexpected place on the page. | Font size too small, particularly the navigation labels. | Mislabeled, misleading, hierarchy of items is not logical | Branding clash between logo design and site, logo too small, certain elements do not match the rest of the site. | Site is not responsive. |
| Recommendation | Put shopping cart in easily accessible and visible location, carts are usually located in the top right corner. | Increase font size and line spacing. Reduce clutter by auditing and simplifying content. Simplify navigation labels. | Adopt the logical navigational pathways, organization and labels identified in our Card Sort. | Keep design choices consistent throughout the site. Make sure logo design reflects the themes of the website. | Add responsiveness to website pages. Test functionality and look and feel on different devices. |
| Participant Support | P1, P5, P7 | P3, P4, P6 | All | P3,P4,P6 | P2 |
| Severity | High | High | High | Moderate | Low |

Usability Testing: Conclusion

- Generally there were large problems with the shopping cart location as well as function. Though 6/7 participants completed this task, the navigational pathways proved to be confusing and frustrating. All participants expressed issues locating the cart.
- All participants experienced trouble navigating the Wisconsin Dairy Council website. Participants felt that the navigation items didn't make sense and often resulted in excessive searching for a logical path.
- As a team we improved our understanding of website usability through the number of research methods performed in this class, gaining knowledge of website structure, functionality and navigational pathways. We became familiar with what makes a site usable and the importance of the user's perspective. We then were able to apply that knowledge during our observations of user's interaction with our website and formulate conclusions and recommendations.