

Letter of Transmittal

Date: December 11th, 2018
To: IKEA Design & Development Teams
From: Courtney McKee | Sam O'Brien | Kerstian Bekele | Kaitlyn He
Subject: IKEA Website Usability Study Results and Recommendations

Attached below is the final report for the usability study that our team conducted on the IKEA website. We used a series of five tasks in our test kit (see Appendix F) to assess the functionality of the website. The purpose of this study was to determine if and how the IKEA website appeals to a younger crowd, specifically college students, who shop on a budget. Our goals when conducting this study were to help IKEA establish a loyal customer base for the future.

While conducting this study, our team performed eight test sessions during which we had participants complete five tasks. Together, the five tasks were used to understand the overall usability of the website. Each task tests a specific aspect of the website, and our team analyzed individual tasks amongst participants to reveal the strengths and weaknesses of these specific website features. The features that our tasks tests were: the ability to search for and filter items, the usability of cart, error handling, sorting by price, the learnability of the website, and the ability to find and use coupons. The data taken from these tasks and the overall test were collected and analyzed to write the report.

Some of the findings of our study show that products are easy to find on the IKEA website. Our participants also liked that when they hovered over products, a pop-up showing details and price showed up. Our participants also noted that they were happy with the affordable prices of the products on the website. The key issues that our team found which could be improved upon were issues with checkout, difficulty using the search filtering system, inability to find coupons, and participants getting confused by the “Buy Online” button. These findings had the highest level of severity, and should be prioritized when redesigning the website.

Our team drafted four design recommendations that address the issues listed above. The first recommendation is to add an “input zip code” pop-up at the beginning of each session so users can see an estimated shipping cost while shopping. Our team also suggests to add an apply button on each filtering window, and to keep the search filters consistent. We also feel that adding a “Coupons” page to the top line navigation menu of the website would be helpful. Finally, the wording of the “Buy Online” button should be changed to “Add to Shopping Cart”.

We appreciate the opportunity to work with the IKEA development team to help improve the already successful IKEA website. If you have any questions or comments please feel free to reach out and contact us at hcdeusability8@gmail.com.

Final Report

IKEA Website

December 11th, 2018

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Executive Summary

In October 2018, the teaching team for the class HCDE 417 invited us to create and run a usability study on the IKEA website. The purpose of this study was to assess how effectively the IKEA website appeals to the budgeting college shopper. Our goals when conducting this study were to help IKEA establish a loyal customer base for the future.

We asked participants to complete five tasks that our team created in order to test the overall usability of the website. Our tasks assess the following aspects of the IKEA website: the ability to search and filter items, the usability of the cart, error handling, price sorting, learnability of website, and find / applying coupons. After testing the website we analyzed the data and presented our findings and recommendations.

Our team conducted usability testing sessions on November 13th, 15th, and 16th . There were eight sessions, each with a different participant who lived off campus in a unfurnished place, who had moved in the last six months, and who was a current college student. Participants had to meet these requirements in order to be considered for involvement in this study.

Our team created a pre-screener survey, a pre-test questionnaire, a data logging table, a post-task questionnaire, and a post test questionnaire to collect quantitative data before, during, and after each testing session. Aside from the number of errors made (and other qualitative data points, see Appendix E) these forms were used to record participant thoughts, comments, behaviors, and facial expressions over the course of each study session.

After concluding our study, our team found four main issues ranging from highest severity (prohibited participants from completing the task without assistance) to lowest severity (can easily be fixed). Our first finding was the issue on checkout page, because it requires the participant to input and calculate zip code to proceed to checkout without any clear indication of how or where to do this. Our second finding was inconsistencies between the product filtering systems on the website. Our third finding is that participants had hard time finding and applying coupons on the website. Our fourth and final finding is that the wording of the “Buy Online” button seemed to confuse participants when adding an item to their checkout cart.

Based on these identified issues, our team has four recommendations. The first recommendation is to add an “input zip code” pop-up at the beginning of each session so users can see an estimated shipping cost while shopping. Our team also suggests to add an apply button on each filtering window, and to keep the search filters consistent. We also feel that adding a “Coupons” page to the top line navigation menu of the website would be helpful. Finally, the button wording of the “Buy Online” button should be changed to “Add to Shopping Cart”.

Introduction

IKEA is a company that sells home-furnishing goods that is based out of Sweden. The IKEA company has made it their mission to create “a better everyday life for people by offering a wide range of well-designed, functional home furnishing products at prices so low so that as many people as possible will be able to afford them”. To accomplish this mission, IKEA sells goods to customers both in stores and on their website, www.IKEA.com. Our team designed a usability study to assess how effectively the IKEA website achieves the goals of the company.

Aside from testing to see if the IKEA website achieves company goals, our team also wanted to see how effectively the website appeals to college students. College students often shop on a budget and are bound by a lack of transportation. If the IKEA website can appeal to the budgeting college shopper, then we felt that the website would be achieving IKEA’s mission statement. Additionally, catering to the college student will help IKEA appeal to a younger generation, which can establish a loyal customer base for the future. The main goal of this study was to assess how the IKEA website caters to the budgeting college student shopper.

Research Questions

Our team sought to answer five questions while conducting this usability study. In answering these questions, our team identified how effectively the IKEA website appeals to the budgeting college student. A list of the five research questions that this usability study answered follows below:

1. Are users able to navigate through the website? If not, where are they getting stuck?
(What are some of the confusing points of navigation?)
2. How easily can users find and purchase a product?
3. What is the most likely approach a user takes when purchasing a product on the website?
4. How discoverable are the coupons on the IKEA website, and where do users have trouble applying coupons to a purchase?
5. Does the IKEA website appeal to college students?

The Team

The team that designed and conducted this usability study consisted of four members: Courtney McKee, Kerstian Bekele, Kaitlyn He, and Sam O’Brien. The four team members were attending the University of Washington when they conducted this study for the class HCDE 417: Usability Research Techniques.

Unique Terms

IKEA Family Member: A user who has registered on the IKEA website to become a rewards member who receives emails from IKEA and gets coupons for IKEA products.

Buy Online: Adds a product to the shopping cart without redirecting the user to the cart page. The user can continue shopping or go into their cart to proceed with their checkout.

Add to Shopping List: Adds the product to a “wish list” that the user can look at later.

Overview

The rest of this report consists of the following sections:

- Methods and Procedures
- Study Metrics
- Results and Recommendations
 - Finding 1: Checkout Issue
 - Finding 2: Could not Coupons
 - Finding 3: Inconsistent Search Parameters
 - Finding 4: “Buy Online” Button Wording
- Conclusion
- Final Recommendations
- Appendix

Methods

For this study, we recruited eight participants with different demographics, varying by gender and experience in online shopping. The participants who completed the study have met the inclusion criteria

Recruiting Criteria

Age Range	18-24
Gender	Male, Female, other
Recruiting Inclusion Criteria	Moved into a new home within the last six months Participant is a current college
Recruiting Exclusion Criteria	Under 18 Non college students (and Running Start students) People who were very familiar with the IKEA website
Experience with IKEA	Half of which having at least one experience involving browsing the IKEA website, purchasing an item, and having the item delivered (or picked up) to their house

Participant Demographics in the Study

Age Range	19-22
Gender	5 Female, 3 Male
Participants Characteristic	Recently moved into an unfurnished home Participant is a current college
Occupation	Current UW undergraduate students
Experience with IKEA	All participants browsed the IKEA website, but only 2 participant purchased products from the website

This study was conducted from November 13, 2018 to November 16, 2018 in the UW Foster, Suzzallo, and Sieg study rooms. We chose study rooms because they provide the participant with the privacy they need to think aloud and express their thoughts effectively. The study rooms are also big enough to give them the space they need to feel comfortable, while giving our team the space we need to take notes and monitor the screen recording. Listed below is the study session format and procedure.

Prior to conducting the study, we set up a UserZoom Study on both the moderator's (to be used by the participant for privacy) and observer's laptop. Our team began the study by welcoming and thanking the participant for coming. The moderator then introduced themselves and the observers in the room. Before continuing with the study, the moderator explained the study and how the participant's data will be used. Then, we asked for permission to record a video of the study session (screen, face, and audio) and gave a consent form that the participant would sign if they agreed to move forward with the study (see Appendix B). After obtaining the consent form, we began recording and explained how the study session was going to work. The moderator always read from a script as to stay consistent with all participant (see Appendix C and Appendix D).

For the first two participants, we had one moderator and the rest of the team (three members) acted as observers because these were pilot sessions, and it was important to set the standards of data collection and participant-moderator rapport amongst our team members. For the remaining six participants, we split into two groups of two - one moderator and one observer for each session. The role of the moderator was to walk the participant through the task scenarios and describe the study to the participant. The moderator also took quick notes and wrote questions in their notebook. The role of observer was to take notes on a printed data logging sheet (see Appendix E) and to ensure that the UserZoom client was working and recording the screen of the participant. Observers also asked specific questions based on what they observed at the end of the study session.

To help participants feel comfortable when sharing their thoughts and ideas during the study, the moderator of each session gave them a hypothetical scenario to help them practice thinking-out-loud (see Appendix D). Then, the moderator asked each participant to fill out the pre-test questionnaire (see Appendix J) to understand their past experiences with moving into a new place and with online shopping (if they had any). Then, the moderator would read each task scenario out loud and informed participants that they might not receive support along the way, as we were trying to mimic an "at home online shopping experience" for our participants. After each task, participants were asked to fill out our post task questionnaire (see Appendix K) in order for our team to get a better sense of how they felt while completing each task, which might include recommendations, frustration points, or some successful aspects of the website.

At the end of each usability testing session, the participants were asked to fill out a post-test questionnaire (see Appendix L) to reflect on their interaction with the IKEA website. To finish off each session, we asked each participant if they had any questions, provided them with the incentives, and thanked them for participating in our usability study.

#	Task	Objectives
1	Find a large, black, circular table and two chairs, and add them to your cart	Overall Usability of Website/ Ability to Search and Filter Items
2	Remove these items from your cart.	Usability of Cart
3	With a \$500 budget, purchase a sofa, a coffee table, and one decoration of your choice to furnish you new living room.	Price Sorting/Error Handling.
4	Remove all of the items from your cart.	Usability and Learnability of Cart
5	Find a coupon and apply it to the relevant items that currently match the coupon, and finish your purchase.	Ability to Use a Discount on an Item

Metrics

During this study there were many methods and procedures that we used to collect data. The forms for the pre-study, pre-task, data logging, post task, and post test can be found in Appendix J - L. Below is a summary of each of the forms listed above.

Forms	Summary of Data Collected
Participant Screener	The pre-study was used to filter through participants that fit our study's requirements. This includes if they were in college, if they moved in the last six months, if the place they moved into was unfurnished, and if they had used the IKEA website in the past. The data collected was also used for quantitative measurements. We used it to look at how participants compared to each other depending on whether or not they had used the IKEA website
Pre-test Questionnaire	The pre-test questionnaire was given to the participants to fill out before starting the study session via an online form, and it primarily contained questions geared towards collecting quantitative data. This questionnaire asked if participants have had experience with online shopping, if they had moved in their life and how recently they moved, if they had ever used the IKEA website before, if they had to buy furniture for their new place, and asked what websites they use already to buy home appliances. This allowed us to look into the demographics and established how much experience our participants had with online home-furnishing dealers.
Data Logging Form	These note-taking forms were used during all five tasks by the observers and the moderators, and it consisted of both quantitative and qualitative data points. The quantitative data included on these forms were amount of time took to complete each task, the number of pages a participant traveled to, and the number of errors made / amount of help needed to complete the task. The qualitative data points consisted of general observations, frustration points, participants comments, facial expressions / demeanor, and types of errors.

Post-task Questionnaire	Each post-task questionnaire was taken by the participant on paper after each of the five tasks. The qualitative data gathered by this questionnaire aimed at gathering general information about how they felt and what they found to be difficult. We used a likert scale to gather qualitative data about how easy the task was to complete, and how satisfied each participant was after completing the task.
Post-test Questionnaire	At the end of each study session, the participant would complete the post-test questionnaire via an online survey. The quantitative data that we collected consisted of how participants felt about the website's error recovery. Some of the qualitative data that we collected asked what parts of the participant's interaction were the most difficult, what about the website was appealing, what aspects they enjoyed, and what parts of the website they did not enjoy. All of this data helped us understand the notes we took during the session, and pointed out aspects of the website that could be improved upon.

Results

In this section we discuss how we analyzed the data from our study sessions, which includes severity ratings, affinity diagramming (see **Figure 1**), and open coding. After going over the analysis stage, there are four key findings that are presented with recommendations on how to fix them. At the end of this section there are also other findings with lower severity ratings. But first we will discuss some of the positive findings we identified throughout our study.

Positive Findings

The IKEA website had features that were useful which our participants found to be informational. The first positive finding our team identified is that it is easy to remove items from the cart. All of the participants seemed to have no issues at all when removing items from their cart. Participant 5, after saying the task was easy, said, "...because I saw the delete buttons and I know what 'edit' means. And I found the 'remove all button'". With the ability to remove all items from their cart with one click, the user is able to easily restart their shopping cart and can continue on shopping. Our second finding is that there are good overviews about the products participants are shopping for, which includes the size, price, and available colors. Four out of the eight participants looked into details about the product before purchasing it to make sure that it would be a good fit inside their "new home". Our third positive finding is that products were easy to find. There were two ways in which they could find the items they wanted. This included a search bar and an "all products" drop-down list with all of the appliances one would need to decorate their home. These were the three overall positive findings from our study, but there were more aspects of the website that we identified. Below are some more comments from participants about the positive things they encountered during this study:

"Feeling like I could afford things. But pretty user friendly website"

"I had freedom of choice for how I wanted to decorate my home"

"I like the images while browsing"

"Looking at different, colorful items" (said they liked this)

In order to make the website even more enjoyable and user-friendly, our team focussed on identifying the problems with the website. The four findings listed below demonstrate the parts of the IKEA website that participants struggled with. Our team included a series of design recommendations that tackle these identified issues, which we feel would make the website a more positive experience.

Severity Table

Below is a table depicting the severity rating system that we used to grade our findings.

5	An issue that prevents a majority of users to complete their tasks quickly or cause users fail to complete their tasks
4	An issue that prevents a majority of users to complete their tasks quickly but they are able to navigate and find their way to complete their tasks
3	An issue that prevents some users to complete their tasks quickly and causing frustrating feelings
2	An issue that prevents some users to finish their tasks quickly and easily but they are able to navigate and find their way to complete the tasks
1	An issue that prevents a few users to finish the tasks quickly and easily without frustration

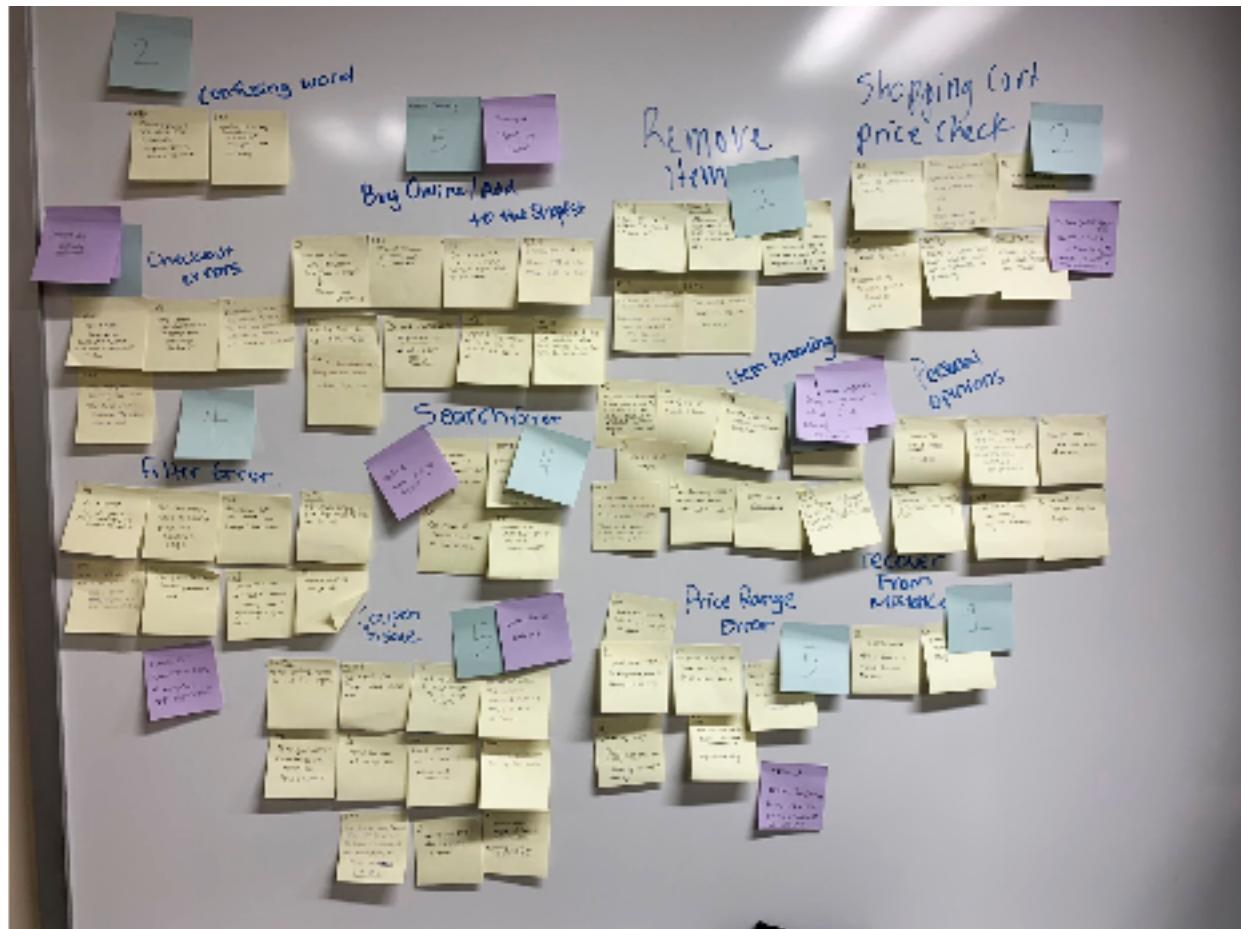


Figure 1: Affinity Diagram With Issues, Their Severity Levels & Possible Design Recommendations

Open Coding

These are the various notes that our team recorded during the usability studies. Listed below are some examples of the notes that our team took during the study. The rest of the notes taken during this study can be found in Appendix M.

Participant #1

Task	Succeed/Failed	Observations	Frustration Points
Task 1	Failed	Did not finish checking out. Choose dining to find tables and did this for chairs as well	Not being able to checkout
Task 2	Succeed	Clicked remove all.	
Task 3	Succeed	Went to offers page first, confused on how to sort by price because they did not know they had to refresh the page, viewed cart to make sure items were added before continuing to find next item	Font is hard to read because it is small, blue, and cramped
Task 4	Succeed	Clicked remove all	
Task 5	Failed	Could not figure out where coupons are. Scrolled through home page, and then went through many other pages including ikea family member page. was unsure if there was coupons or not	Confused as to why there are bathrobes on the offers page, not being able to know if there are any offers

Participant #2

Task	Succeed/ Failed	Observations	Frustration Points
Task #1	Succeed	First the user searched the “round black table”; and got wrong tables; Looking for category for “round table”; browsed through and found none of the options that she wanted; Eventually found one but it’s not available online; just added to her favorite	Wished there is an option for the kind of table; More clear and descriptive categories

Task #2	Succeed	Browsed; go back to homepage then go to the cart;	Had to go back to the homepage to re-navigate and find the cart
Task #3	Succeed	Started with the most expensive item Change the price range use the item box; instead of the bar; and the filter worked; went for the cheapest couch; won't let her direct pick "buy online";	Begin check out; have to put down the location first;
Task #4	Succeed	Quickly done it to show learnability; always have to go back the page to "remove all"	Have to scroll down bcuz the page landed at the top
Task #5	Failed	Navigated back to homepage through the IKEA icon; browsed through the page; don't want to use the credit card; there is one coupon on pie; and didn't want to order online;	Shouldn't be hard to find coupons; browsed up and down and didn't seem to figure out how to find coupons

Participant #3

Task	Succeed /Failed	Observations	Frustration Points
1	Succeed	<ul style="list-style-type: none"> -Participant used the search bar to find product, not the "all products page". -Participant immediately noticed and used the search filtering system. -The participant seemed to be confused with the "Buy Online" button when adding an item to cart. -Participant took a little bit of time to find out where the shopping list was and how to transfer the items to cart. 	<ul style="list-style-type: none"> -Participant kept adding an item to their shopping list when they should have been adding to their cart. -Participant was frustrated and confused when their items were not in the cart (the items were in the shopping list). -The wording of the "Buy Online" button.
2	Fail	-Participant needed the scenario to be	-The "update and

		<p>described to her in more depth.</p> <ul style="list-style-type: none"> -Participant did not remove all of the items from the cart and needed to be told to remove all of the items. 	<p>"refresh" when the participant was deleting single items from her shopping cart.</p>
3	Succeed	<ul style="list-style-type: none"> -Participant set the max price in the price filter close to the price of \$500. -Participant primarily used the hover-over features when searching for items. 	<ul style="list-style-type: none"> -Participant did not see the "decorations" product page immediately. -Participant did not immediately use filters, but did after getting the couch
4	Succeed	<ul style="list-style-type: none"> -Participant found "edit" button right away the second time they used the cart. 	None
5	Succeed	<ul style="list-style-type: none"> -Participant seemed "lost" when initially looking for coupons. 	<ul style="list-style-type: none"> -Did not know where to look for coupons from the home page. -Did not know when product/coupon was available.

Key Findings

This section depicts the four main findings in order of importance (most severe to least severe). For each key finding, we provide evidence, the severity level, screenshots of the UI issue being discussed, participant comments, and recommendations for solving the issue. There also videos that can be found in Appendix N showing each testing session. The four main findings are:

1. Checkout Issue
2. Inconsistent Search Parameters
3. Couldn't find Coupon
4. Confused Wordings Buy Online

Findings, Evidence, Recommendations, Fixes	Severity	UI Area
Key Finding 1: Checkout Issue	5	Checkout Page

Issue

4 out of 8 participants did not know the IKEA checkout procedure. After adding an item to their cart, they open their cart to proceed to checkout. However, they were frustrated and disappointed when they were unable to click the 'Begin Checkout' button [grayed out] and they didn't know why they were unable to check out (see **Figure 2**). Two participants gave up and one was able to checkout with assistance. One participant (who gave on online order) attempted to do an in store pick up of the product from their local IKEA store, but was unable to due to the item being unavailable for in-store pick up. As a result, the participant was frustrated about not being able to purchase the product both online and from the store. Therefore, only participants who were familiar with the website prior to the study were able check out by inputting their zip code and clicking on the 'Calculate' button without assistance.

Evidence

UI Example

The screenshot shows the IKEA checkout process. At the top, there's a navigation bar with links for Products, Inspiration, New, Offers, and Services. A search bar and a shopping cart icon are also present. The main content area displays a product in the cart: an INGATORP extendable table in black, priced at \$349.00. Below the product details, there are buttons for 'Move to shopping list' and 'delete'. A link to 'Remove all' is also visible. The cart summary table shows a Subtotal before delivery of \$349.00 and a Delivery row labeled '(Not yet calculated)' with a question mark. The Order Total is \$349.00. A large 'BEGIN CHECKOUT' button is located on the right side of the summary table. On the left, there's a section for entering a coupon code and another for delivery information. A red circle highlights the 'Calculate' button, which is part of a form for entering a zip code and choosing a state. Below this, there's a 'Click & Collect' section with a note about the service and a dropdown menu for selecting a store.

Subtotal before delivery	\$349.00
Delivery (Not yet calculated)	?
Order Total	\$349.00

Figure 2: A screenshot of the current IKEA checkout page with zip code requirement to proceed to checkout.

Participants Comments

"I would click 'Begin Checkout', but for some reason the button is grayed so I don't think it's going to let me go there [checkout]" (P1)

“I think it wants me to figure out my delivery estimated cost first”(P4)
“Why doesn’t it let me [‘Begin Checkout’]”(P8)
“It doesn’t just let me began checkout”(P7)
“Oh maybe I have to calculate first [to checkout]”(P7)
“It doesn’t actually retain my zip code that is something that could stay [be saved]” (P4)
“It was hard to update the zip code every time for a price estimate.”(P_Anonymous)
“Like the least about the IKEA website is] having to enter zip code for price estimate”(P_Anonymous)

Video Evidence:

<https://drive.google.com/file/d/1V-CDpbDzStpjNGDZFBdzWSsLqOqb3Yot/view?usp=sharing>

Recommendation

Based on the results of our study and on our participants comments, our team recommends the IKEA website to prompt the user with the options to input an address at the beginning of the session and save it for the whole session (until the user exits out of the website)(see **Figure 3**). Additionally, we suggest the website to provide an “estimated shipping cost” next to the “Buy Online” button. To mitigate the confusion and frustration expressed by our participants with the current “purchase online” or “in store pick up” option, we recommend the website to use a clear and intuitive checkout procedure when calculating the total cost (see **Figure 4**). Simple procedure could go a long way in helping the user feel like they are in control and able to navigate through the checkout process easily.

UI Example:

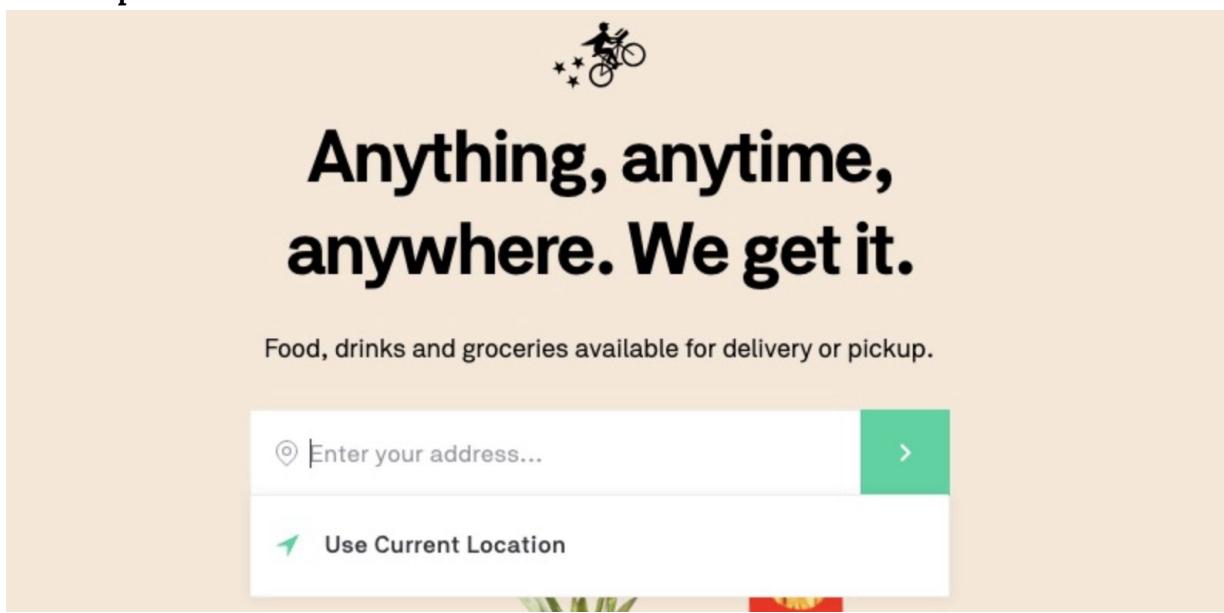


Figure 3 : A screenshot of address prompt that could be used at the beginning of the session to give the

user an estimate on total cost for delivery or in-store pick up

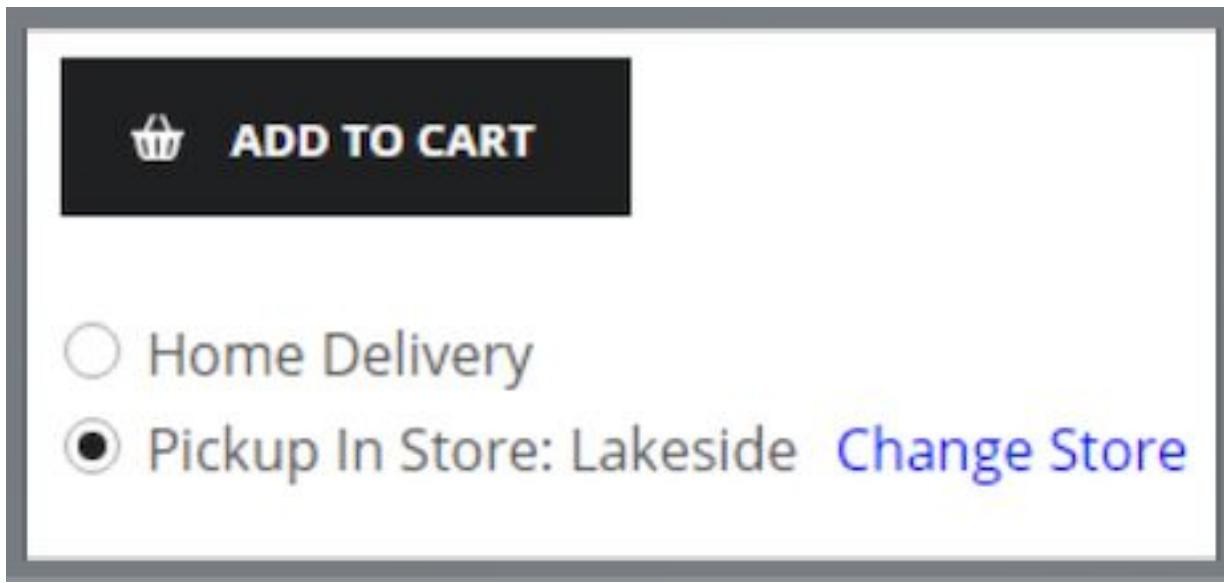


Figure 4 : A screenshot of Home Delivery and Pickup in Store option.

Findings, Evidence, Recommendations, Fixes	Severity	UI Area
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Issue

During our usability study we found that 2 of our 8 participants struggled with the inconsistent search parameters. The reason for this is that not everybody took the same route when searching for items. One page had an apply button (see **Figure 5**) while another did not. One participant struggled with changing the price because there was not an apply button, because they searched for the item through the drop down menu. They assumed that when they clicked out of the price box that the prices would change and only show what they need (see **Figure 6**). This was not the case, because the participant did not realize that they had to click the browser refresh button. The problem with this is that refresh usually means that they are clearing their results rather than updating them. The other issue with the search parameters is that not every page has the same way to change the search requirements. This leads to confusion because a participant expects to be able to do the same thing on every page, but they actually cannot.

Evidence

UI Example

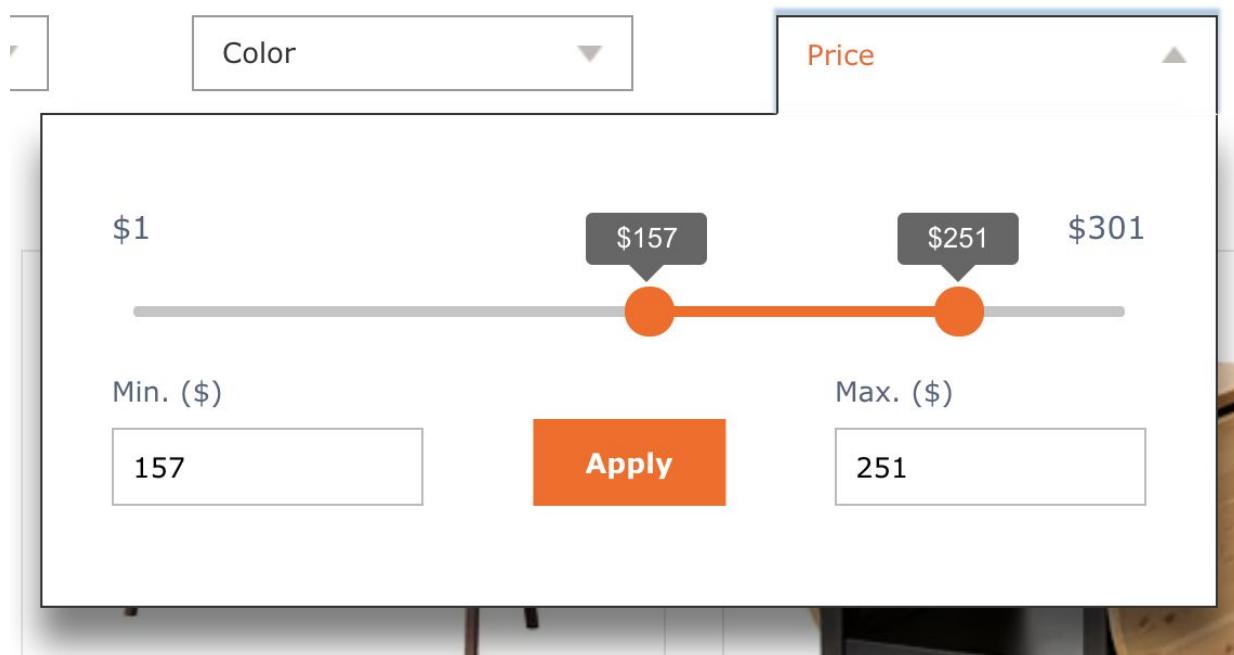


Figure 5: Screenshot of one page where there is an apply button

Sofas

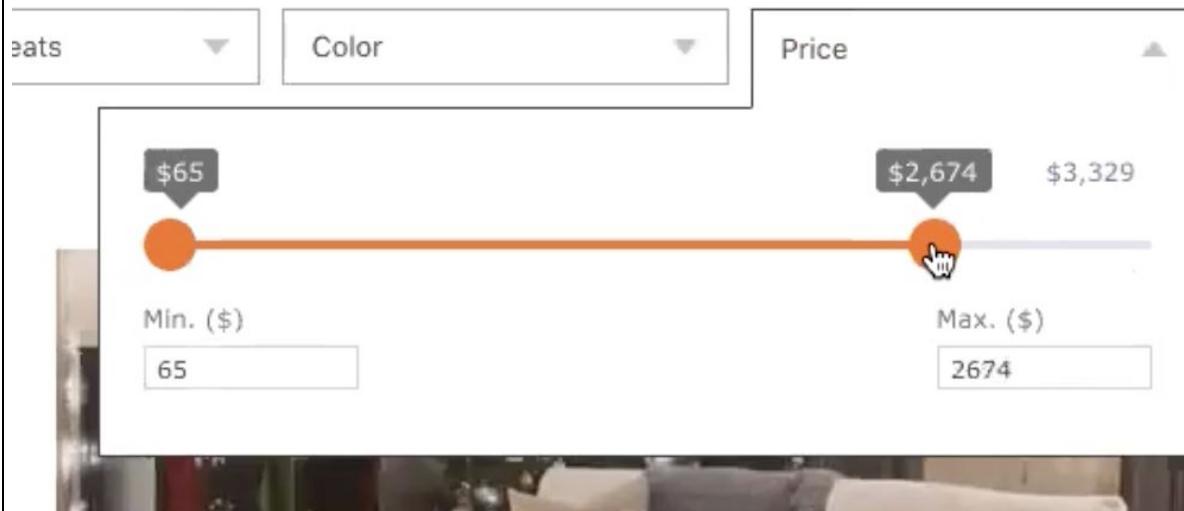


Figure 6: Screenshot of a page where there is no apply button

Participants Comments:

“No” apply” button for sofa pricing, it was elsewhere though”[Neutral to Question 3 on Post Task 3 Questionnaire] (P1)

“Finding sofa without “apply” button on pricing” [what was difficult] (P1)

Video Evidence:

<https://drive.google.com/file/d/19Lxr1dQHz5pjty2VLniMprVCghmN2-/view?usp=sharing>

Recommendation

Our recommendation is that every page should have an apply or filter button for when the user is changing what they are looking for. Within the last week IKEA has applied this idea (see **Figure 7**), but we still think that they could do one more thing. We recommend that there be consistent branding between the search filters. This means that each page has an orange for the filter button. This will fit with the rest of the pages and would help establish a consistent visual language, because they use orange for other buttons throughout the website. We also think that a orange button will stand out more.

UI Example:



Figure 7: Screenshot of the Change IKEA has made

Findings, Evidence, Recommendations, Fixes	Severity	UI Area
Key Finding 3: Could Not Find Coupon	3	Checkout Page

Issue

Over the course of our usability study, 3 out of 8 participants could not locate where the coupons were located on the IKEA website. However, out of the five participants who were able to locate the coupons page, three of them seemed lost and needed to be assisted in some way. Our team noticed that the majority of our participants experienced difficulty and discomfort when trying to locate coupons. One of the participant's first instinct was to type into the product search bar the word "coupons" and was annoyed when the only information that the IKEA website provided was "No Result Found For 'Coupons'". This issue stems from the unclear labeling in the top bar of the website, as well as from the unconventional navigation required to find the coupons page. 6 of the 8 participants first clicked on the "offers" link in the top bar when looking for coupons, but were disappointed to find a conglomerate of miscellaneous products (see **Figure 8**). It was not clear enough to our participants that users have to be IKEA Family members in order to receive discounts on IKEA products (see **Figure 9**). Once participants realized (or were told) that they must be an IKEA Family member, they commented that the website does not make it clear whether or not the logged-in user was a registered Family Member or not. Our team feels that it is essential for IKEA to fix this issue, especially with the mention of "low prices" in the IKEA mission statement.

Evidence

UI Example

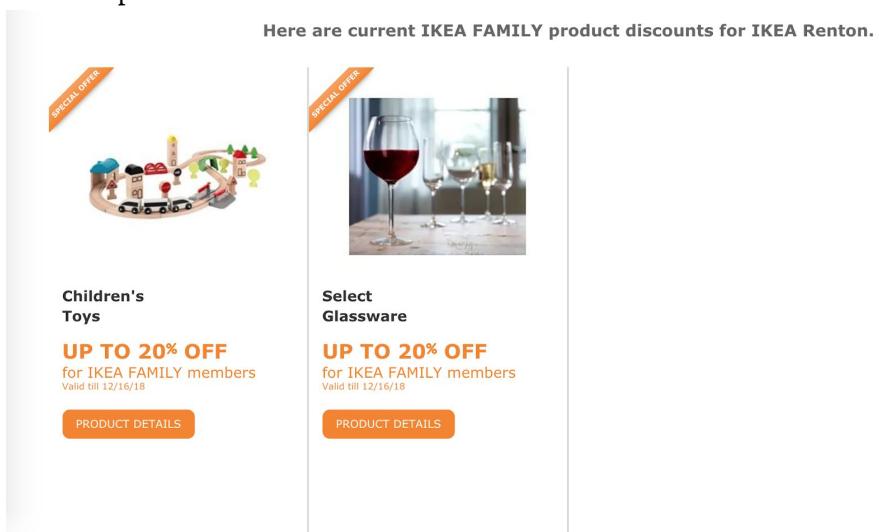


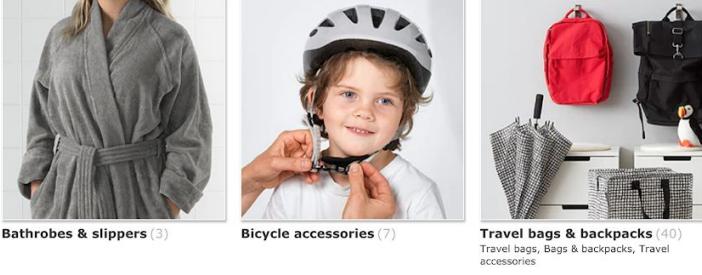
Figure 8: Screenshot of the IKEA family discounts page

 You can do it yourself- but you don't have to | Online shipping starting at \$9!

LEISURE & SAFETY : Bathrobes & slippers | Bicycle accessories | Travel bags & backpacks | Books | Games & recreation | Safety | Series

LEISURE & SAFETY
It's the little things

We love furniture. But sometimes, small details can make a big difference, too. That's the idea behind our Leisure & Safety products. By giving you lots of ways to create a better life at home. By helping you make it safer. By making it easier to live a more active lifestyle. And by giving you lots of inspiration for getting the home you've always wanted.



Bathrobes & slippers (3) Bicycle accessories (7) Travel bags & backpacks (40)
Travel bags, Bags & backpacks, Travel accessories



Books (17)
Children's books, Cookbooks, Decorating & interior design books
Games & recreation (9)
Family & card games, Clothing & accessories, Picnic & outdoor recreation
Safety (9)
Child safety, Home safety
ALL SERIES

Figure 9: Screenshot of the Offers page

Participants Comments:

“The orange color was intuitive to know it’s discounted, but navigating to coupons was clueless” (P3)

“I don’t know if I can find any coupon”(P2)

“I feel like it shouldn’t be this hard to find coupon” (P2)

“They won’t tell me how much I am saving [looking at discounted product]”(P2)

Video Evidence:
https://drive.google.com/file/d/1ULeTAsypmfTFImoHifuL5OR_H1PPSIho/view?usp=sharing

Recommendation

Our team recommends that the IKEA team adds a page to the top bar of the website titled “Coupons” that displays all of the current coupons being offered for IKEA products. This would not require any rearrangement of the webpage layout, as there is enough room to add a new link in the already-existing top bar of the IKEA website (see **Figure 10**). Adding this new link would communicate where the coupons can be found to users of the website, and would allow users to navigate to the coupons page with one click at any point.

Our team also suggests that the IKEA group offers coupons to customers that aren’t a part of the IKEA Family. In order to incentivize non-Family Members to join the IKEA Family, we recommend that the IKEA offer half of discount to non-members, while offering a better discount to Family Members. If all of the coupons are displayed on the same page, then non-family members would be exposed to the betters deals that come along with joining the

IKEA family, and would potentially be incentivized to create an IKEA Family account. Our team feels that if the IKEA group implements some or all of these design recommendations, then the website will better appeal to budgeting shoppers and college students, and would support the IKEA motto of offering “good products at low prices”.

UI Example:



Figure 10 : Website Navigation Tool

Findings, Evidence, Recommendations, Fixes	Severity	UI Area
Key Finding 4: Confusing Wording of “Buy Online” Button	5	All item detailed and browsing pages
Issue		
<p>Through our usability study, there were six out of eight participants that faced difficulty caused by the “Buy Online” button. These participants were hesitant to click on the “Buy Online” button when browsing for more products because when they clicked on the button, they expected it to take them directly to the check out page (buy right now), and they thought that they wouldn’t be able to stay on the page to browse more products (see Figure 11). One of our participants stated that “Buy Online means (to me) that I need to pay right now”. It took this same participant a minute to realize that “...the ‘Buy Online’ button has a plus button (indicating) that it will add to cart”. Another participant commented that one had to guess the meaning of “Buy Online”. Some of them even got confused by pairing the “Buy Online” button with the button below, “Add to the Shopping List”, thinking that the shopping list button would add items to their shopping cart, and the “Buy Online” button was similar to amazon’s “one click purchase” system. We observed six participants lingering around the buttons “Buy Online” and “Add to the Shopping List”. Another participant added all of their items to their shopping list (instead of their cart) and was surprised when she could not find any items in her cart. The participant later had to be given a hint to move their items to the shopping cart.</p>		
Evidence		

UI Example

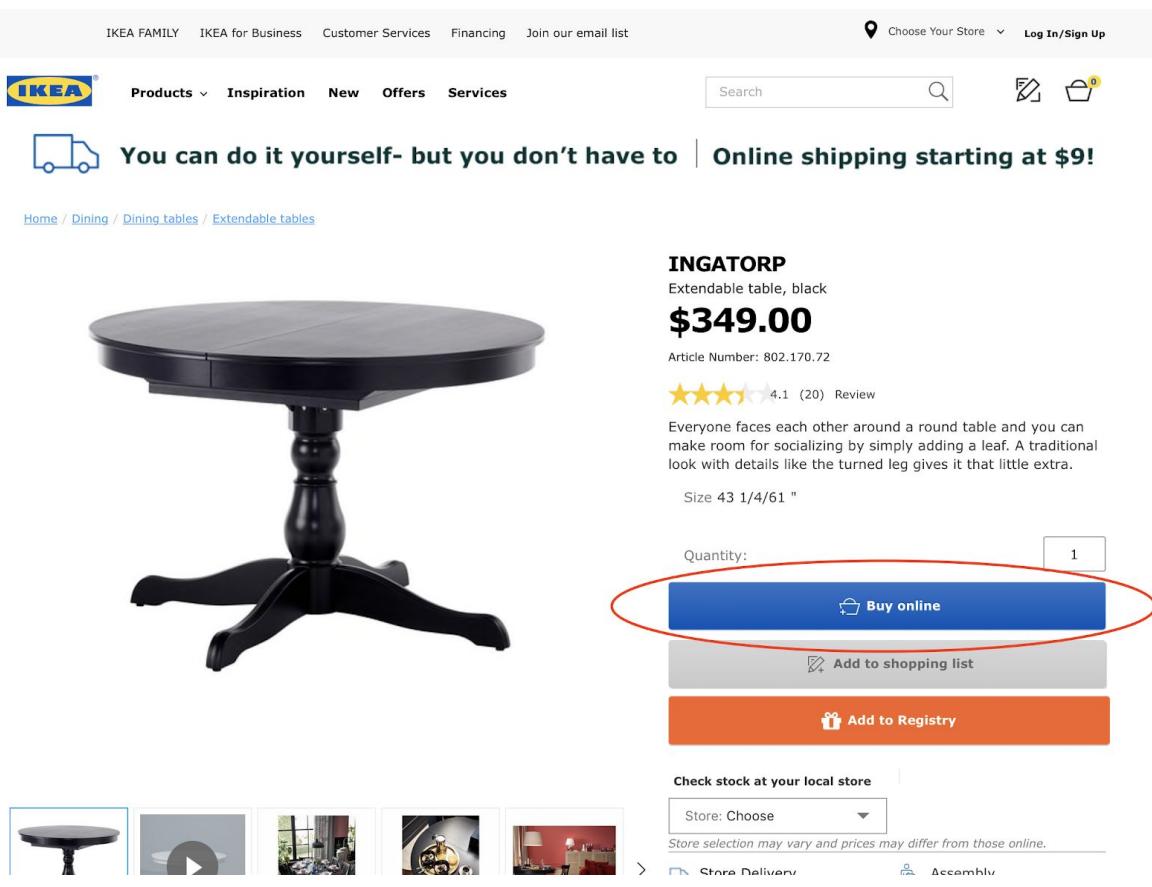


Figure 11: Screenshot of confusing button “Buy Online”

Participants Comments

“Assumed buy online was buy immediately, but I clicked on it to guess” (P5)

“Assumed to add to cart by pressing online, but guessed” (P1)

Video Evidence:

https://drive.google.com/file/d/1u1AbG6oYrP5w8akKWfxttY6Mo7xR_jaL/view?usp=sharing

Recommendation

Even though this issue is severe, our team feels that it can be resolved easily. By simply changing the word of “Buy Online” to “Add to (My) Cart”, participants will know exactly what to expect when clicking on the button. This would provide enough clarification and instruction for users to click on the button to add items to their shopping cart without any unnecessary hesitation.

Other Findings

Findings, Evidence, Recommendations, Fixes	Severity	UI Area
Confusing Swedish Item Names	3	Some Pages on throughout the website

Issue

From our data analysis and affinity diagramming, we realized that a big source of confusion for participants was the Swedish item names used for all IKEA products. As participants were browsing through the offers page, they often times hesitated on tabs like **Figure 12** is showing because they simply do not understand the Swedish terms. Even with support of the product photos, it was still difficult for participants to predict what the Swedish terms meant and what to expect after they click on them.

Evidence

UI Example



AVSIKTIG collection (4)



DJUNGELSKOG collection (28)



KNALLA series (11)

Figure 12: Screenshot some Swedish word confusion

Participants Comments

"All BESTA, Don't even know what that means, so I do not want to look into it" (P5)

Recommendation

We understand that IKEA is proud of their origin and would want to spread their language worldwide. Thus, we recommend IKEA to keep the Swedish terms on the website, and simply add an english (or any language) translation next to the terms like they already been doing for general items (see **Figure 13**). If adding terms next to every title conflicts with the design guidelines of IKEA, then they can assist users with a hover over function to display English translations on top of the products. Either way, IKEA is able to maintain their branding while

reducing the barrier users might experience due to their unfamiliarity with the Swedish language.

UI Example

Figure 13: Screenshot of the product design card



Findings, Evidence, Recommendations, Fixes	Severity	UI Area
Other Finding 2: Removing Item Issue	2	Checkout Page

Issue

We know that all of our participants almost had no issues with removing items from their shopping carts, however, from our observation we did notice that the process of removing items can be simplified. When we asked our participants to remove items from their carts, they took one of two approaches that eventually let them accomplish their goals, with one method being more complicated than the other. Our expectation was for participants to click on the “Remove All” button to remove all their items from their cart with one click, which most of our participants were able to achieve (see **Figure 14**). However, we also had a few participants who decided to delete their items one-by-one from their carts because they did not notice the “Remove All” button. Through observing their process, we noticed that in order to delete one item, they had to update the quantity of the item from one to zero, and then had to click on the “Update” button to remove the item. These participants did not notice the “Remove All” button and they also missed the “Delete” button that is located at the very right of the item in light grey (see **Figure 15**, **Figure 16**). Eventually, they were able to remove all of the items from their cart, but it ultimately cost them way more time and made a simple task very tedious.

Evidence:

UI Screens



The screenshot shows a shopping cart with a single item. The item is a 'STOCKHOLM 2017' floor lamp with an LED bulb, priced at \$74.99. The item details are: chrome plated, Max.: 13 W / 13 W, Height: 55 " / 140 cm, Base diameter: 11 " / 28 cm, Article Number: 703.450.89. Below the item, there are buttons for 'Move to shopping list.', 'delete', and 'Remove all'.

Figure 14: Screenshot of the Shopping Cart with the Remove All button



The screenshot shows a product detail page for an 'ALÄNG' floor lamp with an LED bulb, priced at \$39.99. The item details are: nickel plated, white, Max.: 100 W / 100 W, Min. height: 46 " / 117 cm, Max. height: 63 " / 160 cm, Article Number: 004.162.16. Below the item, there are buttons for 'Move to shopping list.', 'delete', and 'Remove all'.

Figure 15: Screenshot of the Item with light grey Delete button

The screenshot shows a product listing for an ARÖD floor/reading lamp with LED bulb. The item is dark gray anthracite and has a max. height of 67 inches / 170 cm. The base diameter is 12 inches / 30 cm. The article number is 003.891.09. The price is \$64.99, and the total for this item is \$64.99. There is a quantity input field showing '0' and a blue 'update' button. The background of the page is white.

Figure 16: Screenshot of the Item with Update button

Recommendation

Our team felt like the light grey “Delete” button was designed to not be noticed by users when wanting to remove their items. Thus, we recommend to add more hue to the light grey color so that it is noticeable to users.

We also recommend to make “Remove All” button more button-like. Throughout the IKEA online shopping experience, most of the clickable items are button-like. Thus, we highly recommend making “Remove All” also button -ike, so that more users would notice it, rather than unintentionally ignoring its existence. By implementing these changes, IKEA can make the customers’ experience more efficient and smooth.

Findings, Evidence, Recommendations, Fixes	Severity	UI Area
Other Finding 3: Show Subtotal In Cart	2	Everypage

The Issue:

Two of our participants had expressed the desire to view their subtotal while browsing through items and trying to purchase more. One participant had opened the shopping cart as its own page while shopping for multiple items on a budget, just to be able to see what the current price was. The participant had to refresh the page every time after adding new items into the cart to see the updated subtotal. After observing these behaviors, our team feels this obstacle might slow down and detract from users' shopping experience, and it affected their ability to effectively purchase items on a budget. Even though all participants were able to complete the given task of purchasing multiple items on a budget, we feel that the process can be improved and made to run more smoothly.

Evidence

UI Example



Figure 17: Screenshot of the Shopping Cart icon and the Wish List icon

Recommendation

We noticed that when mousing over the shopping cart icon, there is no feedback. When clicking on the shopping cart icon, as expected, it takes users to the shopping cart page with a rough subtotal (see **Figure 17**). Thinking about the function of a shopping cart, and looking into other online shopping websites, our team recommends to add a mouse hover over to the shopping cart icon that would show a brief summary of what is in the cart and the current subtotal. This change would not require a huge amount of changes to be made, but it would help smoothen out customers' shopping experience when they are shopping on a budget.

Findings, Evidence, Recommendations, Fixes	Severity	UI Area
Other Finding 4: Product Availability	3	Products Page

Issue

Some of our participants were frustrated when they found out the product they wanted to buy was not available. The only way to find out this information is to click on the product and attempt to add the product to their cart. Whether the user is shopping online or for in store pick up, there is no information provided when browsing products about the availability for online purchase (see **Figure 18**). In our study, when participants were shopping for online products, the website informed the user the product wasn't available only when they reached the product page (see **Figure 19**). Even when products are available, the website doesn't inform the user the quantity of the product that is available. Additionally, two participants were attempting to pick up a product from their local store, but they received an error message stating that the product wasn't available for in store pickup. There were no labels or clear indications that hinted at the availability/unavailability of products prior to the checkout page (see **Figure 20**).

Evidence

Participants Comments:

"Oh shoot, it's not available"!? (P3)

"How do I know which products are available"? (P3)

"Lack of clarity in regards to product availability, prior to adding to cart"

UI Example

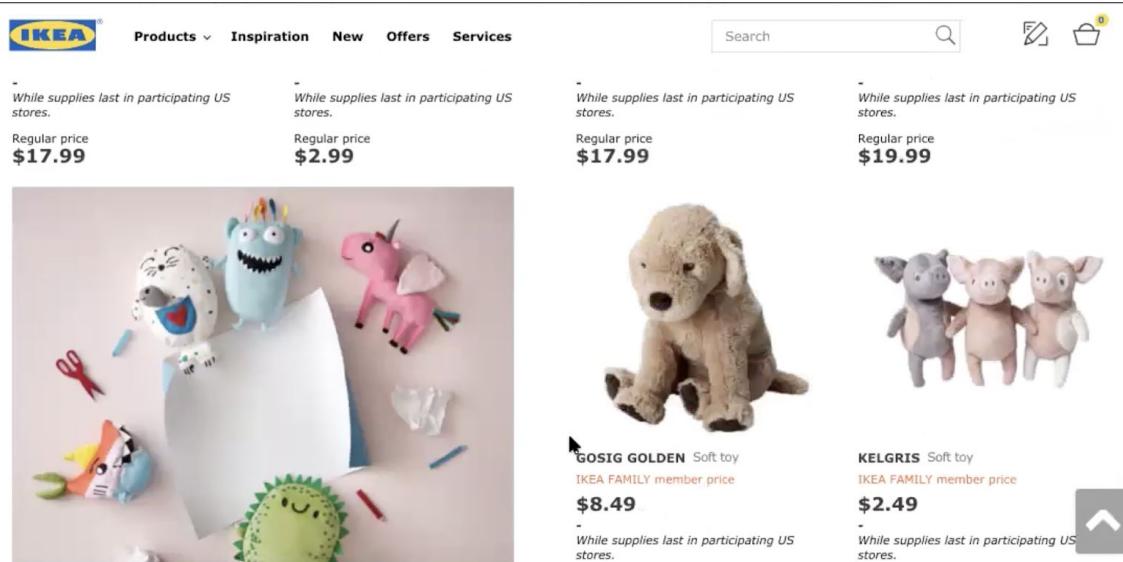


Figure 18: A screenshot of a result page without product availability for online purchase and delivery or in-store pick up

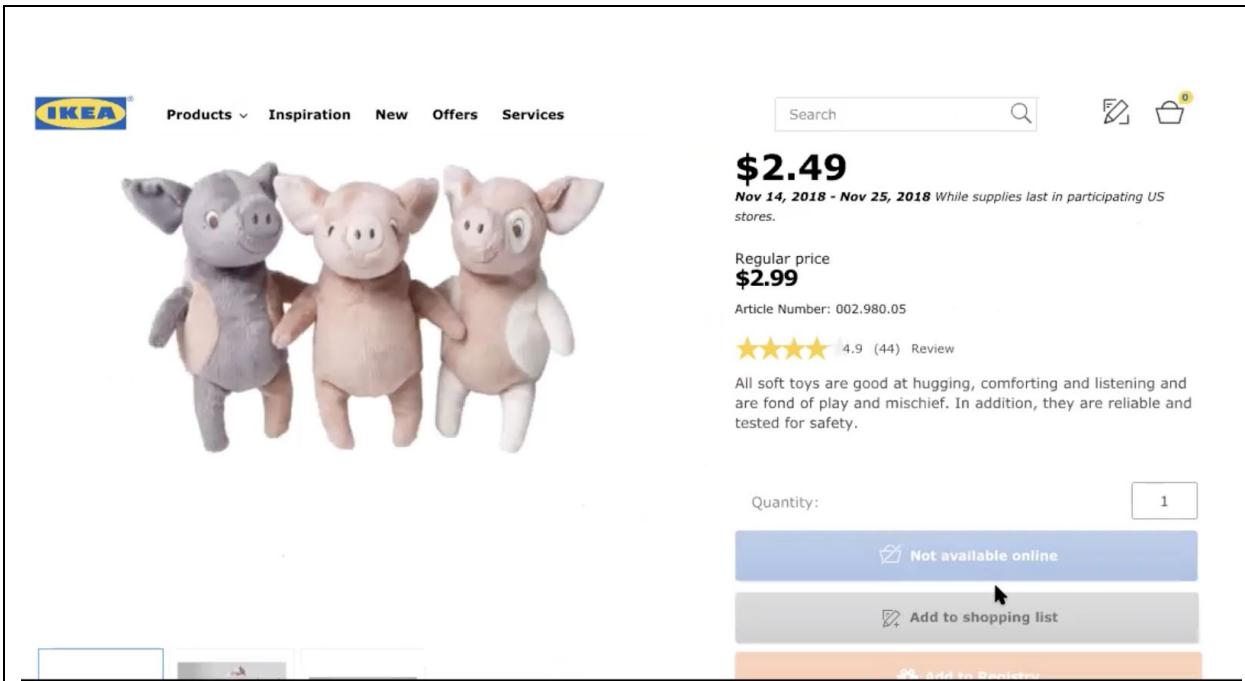


Figure 19: A screenshot of a product page with the buy online button overwritten as not available online

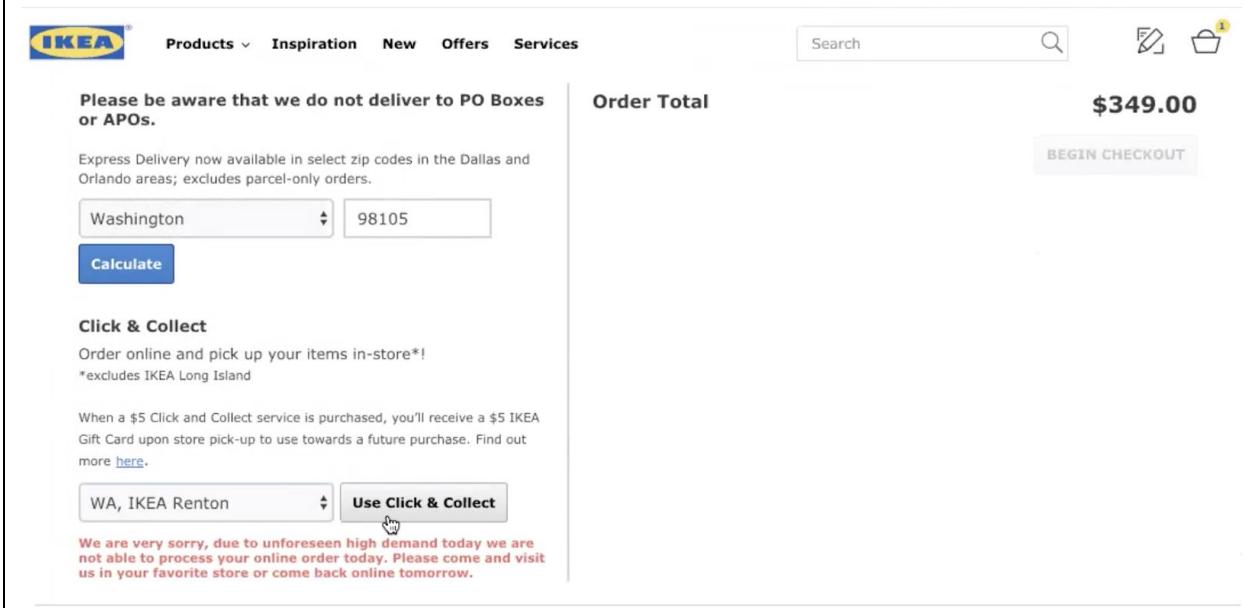


Figure 20: A screenshot of a checkout page - product availability for pick up

Recommendation

Based on the frustration of our participants, we believe it is important for IKEA to implement an availability label to their products that are in stock for both online and in store pick up. Furthermore, the availability label can be expanded to reflect the color and quantity of items available based off of what a user selects when they are on the product page (see Figure 21). As seen in the figure below, the IKEA website could also offer the option to be notified when an item they add to their cart is restocked. By doing this, IKEA can ensure a sale and can gain customer loyalty when they meet the needs of their users by simply letting them know what is available and alerting them when items become available.

UI Example



Figure 21: A screenshot of product availability with notification option.

Conclusion

Next Steps

After going through the data we collected and coming up with design recommendations, there are a few next steps we would want to take after this study. From our study we learned that there are success aspects of the IKEA website, and there are areas where the IKEA website can be improved. To strength those aspects, we want to implement some of our design recommendations, mock them up, and run a second usability study with these mock-ups. After re-designing the interface, we would run the study with the participants from our last study sessions to see if our recommendations effectively increase the IKEA online shopping experience. We would also measure the changes in time it took to complete task for each participant, with ambitions of lowing the overall time spent on the website.

We also think it would be beneficial to get in touch with different the teams that are responsible for different parts of the website. We would contact the interaction design team, the product design team, and the website design team to offer more specific usability studies. This would make sure that all parts of the website are running smoothly and would allow us to dedicate the time and the effort on the smaller, less-visible aspects of the IKEA website that have an impact on the online shopping experience for users.

We would also want to check the accessibility of the website, specifically to see if the website fits the W3 Accessibility Policy. We think it is important to make sure that the website can be accessed by anyone through any form of communication. This would show that IKEA is inclusive to its customer base while increasing the amount of potential customers. An international furniture company like IKEA should make sure that everyone in the world can access their website without having to expose themselves to unnecessary obstacles.

Final Recommendations

The IKEA website does a great job appealing to their current customer base. However, by implementing the design recommendations that we suggest above, IKEA can more effectively appeal to the young budgeting shopper and, hence, can establish a loyal customer base for the future. During our study, we focused on how the website can support people who are purchasing furniture on a budget. We recommend IKEA to look into the shopping process, and to have further studies run to ascertain their customer demographics. Doing this would allow IKEA to better tailor their online experience to the preferences and abilities of their user base. We also recommend IKEA to look into the ideology of American society in comparison to Swedish society. The two countries differ in their living styles, views of family, color preferences, and mind sets that essentially reflect on the website's experience. A cross-culture comparison between both countries can help modify the websites, and make the different websites more appealing to their own demographics.

Appendices

Appendix A: Research Questions

1. Are users able to navigate through the website? If not, where are they getting stuck? (What are some of the confusing points of navigation?)
2. How easily can users find and purchase a product?
3. What is the most likely approach a user takes when purchasing a product on the website?
4. How discoverable are the coupons on the IKEA website, and where do users have trouble applying coupons to a purchase?
5. Does the IKEA website appeal to college students?

Appendix B: Consent Form

Participant Number: _____

Consent Form

Nondisclosure and Recording Consent

I agree to participate in the study conducted by the IKEA.com Usability Testing group at the University of Washington, Human Centered Design and Engineering Department.

Please be aware that all of the information derived from this study will be confidential, and the data that you produce will not be used outside of the HCDE 417 course.

Please do not reveal any information that you may learn while participating in the study.

In addition, we will be recording your session in order to help with note taking and post-session review. I assure you that all recordings taken during this session will be for our eyes only.

Please read the statements below and sign where indicated.

I agree that I will disclose no information to any person, firm, or corporation about the Ikea.com usability testing study that is going to be conducted by the HCDE 417 Usability Testing Group.

I understand that this usability test is voluntary and that at any point I can withdraw from the experiment and stop participation.

I understand that photographs and/or recordings will be made of my session. I grant the HCDE 417 Usability Testing Group permission to use these recordings for the purposes mentioned above, and waive my right to review or inspect the recordings prior to their dissemination and distribution.

Participants Name: _____

Date: _____

Participants Signature: _____

Thank you for participating in our IKEA.com usability testing study.

Appendix C: Introductory Script

Welcome the participant, offer refreshments, and exchange pleasantries.

1. Clear the computer cache.
2. Google chrome will already be opened up (open it if it is not).

Thank you again for participating in this study. My name is ____ and this is _____. Before we begin, we want to ask for your permission to record your voice and your facial expressions during this session. We will use these recordings for note taking and data collection, and our team of four people will be the only ones to see them. Everything will be anonymous. If you agree to having your face and voice recorded, please say “yes”. Great! Thank you. Before signing the consent form, let me explain the study. During this session I will be here to walk you through everything. _____ is here to make sure that the session is being recorded, and they will be taking notes on some of the things we do today. Before we begin, I would like you to know that I will be reading from a script to make sure that my instructions are the same for everybody.

We are observing a number of people using the IKEA website in order to test if the site works as intended. Is that alright with you? (*Wait for participant to say yes or no*).

Before we start the tasks, I want to make it clear that we are testing the site, not you. Nothing you do here is wrong. During this session I am going to ask you to think out loud, so try to voice your thought process while you are walking through each scenario. Whatever you say, me or my team will not be offended. We did not have a part in the design of this website, but we do want to improve it. So please be honest about what you are thinking.

If you have any questions throughout this study, please ask them. Not all questions can be answered right away. We are trying place you in a situation as if you are completing these tasks on your own, so while you are using the site we may not help you along the way. At the end of the session you can also ask questions. At any point during this study you can take a break, just let us know.

With your permission, recordings of your voice, face, and computer screen will be taken during this session. We have a consent form for you to sign. This gives us the ability to use the recordings taken today throughout our research process. The only people that will see the recording are the four people on this team. We will be using the information from these recordings to improve the overall website experience. Now I will explain how this session is going to work, but first, do you have any questions so far?

1. Give the participant the consent form

2. Once signed start the camera

This is how the session will work:

1. We will read scenarios out loud and have you complete tasks, which we have printed for you.
2. After each task we will ask a couple of questions about how your experience was.
3. After going through the all of the tasks, we will have you complete a post-test survey.
4. Finally, in the last few minutes we will ask you some questions based on our observations and notes .We will also give you time to ask questions.

Before we start do you have any questions?

Appendix D: Study Script

Read the introductory script

Now that you have signed the consent form. I am going to have you answer a set of questions (Open up pre-test questionnaire).

I am now going to have you practice thinking out loud. Could you tell me about a time that you cooked dinner? What were the steps you took and how did you go about completing the task?

Help guide participant through the process, try to fix problems with thinking aloud before moving on.

After they describe the task.

Now that we are ready to start with the computer, I am going to ask you to navigate to the IKEA website from the Google Browser.

Without clicking on anything on the screen, scroll through the page (allow for a couple mins)

- What do you think this site is for?
- What parts of the website do you think you can click on (interact with)?
- What are some of the things you think you can do on this website?

Thank you. Now I am going to have you complete three tasks. Just a reminder: we are not testing you, we are testing the website. For each task I am going to read it out loud, and then give you time to read the task on your own. Just to remind you, please try to think out loud as you complete each task. Try to talk about what you are doing and why you are doing it. When you are done with the task, click next on the UserZoom client and let us know. After completing each task, we will quickly ask you some questions about your experience while completing the task before moving on to the next one.

To do for this section:

1. Read the scenario and task out loud from the *task scenarios section*.
2. Allow the user to read the scenario.
3. Allow user to proceed with each task until it seems that the user is frustrated or that there are too many failures or until they have completed the task.
4. Once they click next on UserZoom and let us know they finished move onto next step.
5. After each task ask the *post-task questionnaire*.
6. Ask additional questions based on observations.
7. Repeat steps 1-6 for the other four tasks.

Thanks again. Now that the tasks are complete and we are done exploring the IKEA website, it would be helpful for us if you would take a post-test questionnaire survey. This will help us summarize your overall experience with the IKEA website. Please answer the questions as honest and as thoroughly as possible. Are you willing to complete this survey?

- Click on the bookmark pulling out the questionnaire

Thank you for completing the survey. Before we finish I wanted to ask a few questions about some of the things we did today and what I saw. I want to make sure that I wrote down the important details about what happened during this study.

- Ask questions based on what I saw during the session
- Have the observer also ask questions if needed

Do you have any questions for me now that we are done?

- Provide the incentives
- Stop the recording and save the file
- Say thank you and that they can leave now

Appendix E: Data Logging and Note Taking

Error definition: This includes pressing back button, hitting refresh (unless it is for task 2), adding items to a wrong list or not adding to the list, not using filters to pick products.

The participants' comments will be analyzed into categories later: positive, neutral and negative.

Participant Name: _____ Observed/ Asked upon arrival Gender: _____

Participant Session: _____

Task 1: Succeeded/Failed

Observations:

Frustration Points:

Participants Comments (Count # of (+/-) comments):

Start Time: _____

End Time: _____

Task Description	Succeed /Failed	# of Pages Traveled To	# of Errors	# of Times Asked For Help/ Assists Needed	Error Types
Start on the Home Page					
Find a large, black, circular table + 2 chairs					
Purchase the Item before putting down payment information					
Remove the item from the cart					

Task 2: Succeeded/Failed

Observations:

Frustration Points:

Participants Comments (Count # of (+/-) comments):

Start Time: _____

End Time: _____

Task Description	Succeed/ Failed	# of Pages Traveled To	# of Errors	# of Times Asked For Help/ Assists Needed	Error Types
Take the steps that you think are needed in order to remove these items from your cart.					

Task 3: Succeeded/Failed

Observations:

Frustration Points:

Participants Comments

Start Time: _____

End Time: _____

Task Description	Succeed/ Failed	# of Pages Traveled To	# of Errors	# of Times Asked For Help/ Assists Needed	Error Types
Find>Select a sofa, coffee table, and one decoration of their choice, total under \$500					
Check out before putting down payment and address					

Task 4: Succeeded/Failed

Observations:

Frustration Points:

Participants Comments

Start Time: _____

End Time: _____

Task Description	Succeed/ Failed	# of Pages Traveled To	# of Errors	# of Times Asked For Help/ Assists Needed	Error Types
Remove items from cart					

Task 5: Succeeded/Failed

Observations:

Frustration Points:

Participants Comments:

Start Time: _____

End Time: _____

Task Description	Succeed/ Failed	# of Pages Traveled To	# of Errors	# of Times Asked For Help/ Assists Needed	Error Types
Start on the Home Page					
Find a coupon that applies to the relevant products					
Apply the coupon					
Finish the purchase					

Appendix F: Participant Task Version

When printing this out have one scenario per a page.

Scenario #1	
Description	Pretend that you have recently moved into your apartment that is unfurnished. You are looking for a particular item that fits your space accordingly. This item needs to be a large, black, circular table for your dining room. You also need two chairs in addition to the chairs that the table comes with. You heard that IKEA carries items like these, so you decide to go to their website to find these items and buy them. Do what you need to do to purchase a large, black, circular table and two chairs. You can stop once the website prompts you to input credit card or shipping address information.
Scenario #2	
Description	Before purchasing the items, you realize that the items are too expensive and you decide to look for something else. Take the steps that you think are needed in order to remove these items from your cart.
Scenario #3	
Description	While you are browsing the furniture on the website, you realize that you only have \$500 left in your budget to spend on furniture. You decide that you want to purchase a sofa, a coffee table, and one decoration of your choice to furnish your new living room. Take the steps that you need in order to purchase the three items listed above for under \$500. You can stop once the website prompts you to input credit card or shipping address information.
Scenario #4	
Description	After thinking about it, you decide you do not want those items anymore. Remove all of the items from your cart.
Scenario #5	
Description	Now return to the homepage. Once you are there, find a coupon and apply it to the relevant items that currently match the coupon, and finish your purchase. You can stop once the website prompts you to input credit card or shipping address information.

Appendix G: Moderator and Observer Task Version

When printing this out for note taking, have one scenario per page.

Scenario #1	
Goals/Objectives	Overall Usability of Website/ Ability to Search and Filter Items
Scenario	Pretend that you have recently moved into your apartment that is unfurnished. You are looking for a particular item that fits your space accordingly. This item needs to be a large, black, circular table for your dining room. You also need two chairs in addition to the chairs that the table comes with. You heard that IKEA carries items like these, so you decide to go to their website to find these items and buy them. Do what you need to do to find a large, black, circular table and two chairs, and add them to your cart. Next, double check that the items are in your cart and proceed to checkout. You can stop once the website prompts you to input credit card or shipping address information.
Scenario #2	
Goals/Objectives	Usability of Cart
Scenario	Before purchasing the items, you realize that the items too expensive and you decide to look for something else. Take the steps that you think you need in order to remove these items from your cart.
Scenario #3	
Goals/Objectives	Price Sorting/Error Handling.
Scenario	While you are browsing the furniture on the website, you realize that you only have \$500 left in your budget to spend on furniture. You decide that you want to purchase a sofa, a coffee table, and one decoration of your choice to furnish you new living room. Take the steps that you need in order to purchase the three items listed above for under \$500. You can stop once the website prompts you to input credit card or shipping address information.
Scenario #4	
Goals/Objectives	Usability and Learnability of Cart

Scenario	After thinking about it, you decide you do not want those items anymore. Remove all of the items from your cart.
Scenario #5	
Goals/Objectives	Ability to Use a Discount on an Item
Scenario	Now go to the homepage. Once you are there, find a coupon and apply it to the relevant items that currently match the coupon, and finish your purchase. You can stop once the website prompts you to input credit card or shipping address information.

Appendix H: Screening Questionnaire

Website Usability Test

Participant Screening Questionnaires

1. Age: _____
2. Gender: _____
3. Are you a student in college: yes no

If student in college:

Year in College: *Running Start* Freshman Sophomore Junior
Senior

4. Have you moved recently in the past six months? Yes No

If yes: Please describe the condition and the state of the place you moved to. Example:
off campus house that was unfurnished

5. Have you purchased items online from any of the stores below? Yes No

If yes: Select all that apply

Home Depot *IKEA* *Lowes* *Target* *Walmart* *None* *Other:* _____

6. If interested in the study, please leave your name, email, and phone number (optional)

Name: _____ *Email:* _____ *Phone(Optional):* _____

7. What days and times are you available? Circle all that apply to your availability time range

11/12/18 Monday Morning

11/12/18 Monday Afternoon

11/12/18 Monday Evening

11/13/18 Tuesday 3 - 6pm

11/14/18 Wednesday Morning

11/14/18 Wednesday Afternoon

11/15/18 Thursday 3 - 6pm

11/16/18 Friday Morning

11/16.18 Friday Afternoon

Termination Script

Thank you for taking our survey. We appreciate your willingness to participate in our usability sessions. If you meet our recruitment criteria we will contact you via email within the next week to confirm the time and location for your usability session. Thanks again for your interest!

Appendix I: Participant Qualifications

There will be a total of 8 participants in this study, and the qualifying answers to the screener questions are listed below:

Question 1: Age: 18- 24.

Question 2: No gender preference, but asking the question in order to establish the demographic of our participants.

Question 3: Participant is a current college student who is not in the running start program.

Question 4: Participant has moved in the last six months to a place that is “off-campus” (not on the UW campus). Prioritize participants who have moved into an unfurnished place.

Question 5: 4 Four participants who have purchased something from the IKEA website, and four participants who have not.

Question 6: Participant who left their name and email.

Question 8: Can meet during the times offered.

Appendix J: Pre-Test Questionnaire

Have the participant fill it out on a digital form.

1. Have you ever had experience with an online furniture/house appliance shopping website?

Yes

- If so, can you describe this experience?

No

2. Have you ever moved in your life?

Yes

■ How many times? _____

■ What was the experience like?

■ How recently did you move? _____

No

3. Have you ever used the IKEA website?

Yes

■ When was the last time? _____

■ What was the experience like? _____

No

4. Did you have to buy furniture for your new home?

Yes

■ Where did you buy it? _____

■ How was the
experience? _____

No

5. What is your favorite sites to shop for home appliances and why?

Appendix K: Post Task Questionnaire

This questionnaire will be printed and handed to the participant to fill out after each task.

1. This task was easy to complete

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Please explain why did you rated the response the way you did?

_____]

2. What was the most difficult part when completing the task?

3. How did completing this task make you feel?

4. How satisfied are you with the amount of time it took you to complete the task

1	2	3	4	5
Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied

Appendix L: Post Test Questionnaire

The post-test questionnaires will be given to participants on digital forms.

1. What did you enjoy the most about your experience with the website?

2. What did you like least about the website?

	Most Unlikely	Unlikely	Neutral	Likely	Most Likely
How likely are you to use the IKEA website to purchase items again?					
Would you recommend this website to your peers?					

3. Do you feel that the IKEA website appeals to you as a college student?

- a. Yes

■ What appealed to you the most? _____

- b. No

4. Are there parts of the website that you found to be difficult?

- a. Yes

- b. No

5. If I make a mistake, I feel like I will be able to recover easily and quickly.

1	2	3	4	5
Most Unlikely	Unlikely	Neutral	Likely	Most Likely

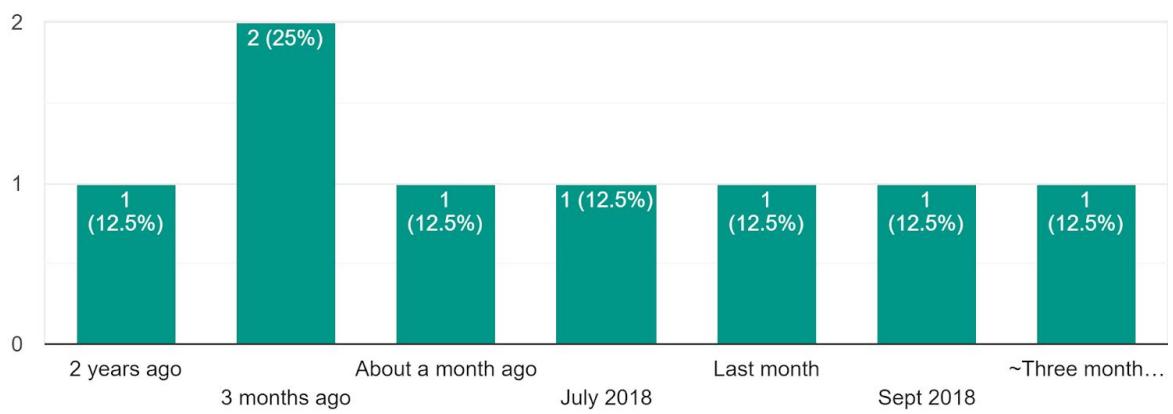
Appendix M: Detailed Survey Results

Survey Results of the Pre-Test Questionnaire:

Last time they Used the IKEA website:

When was the last time?

8 responses

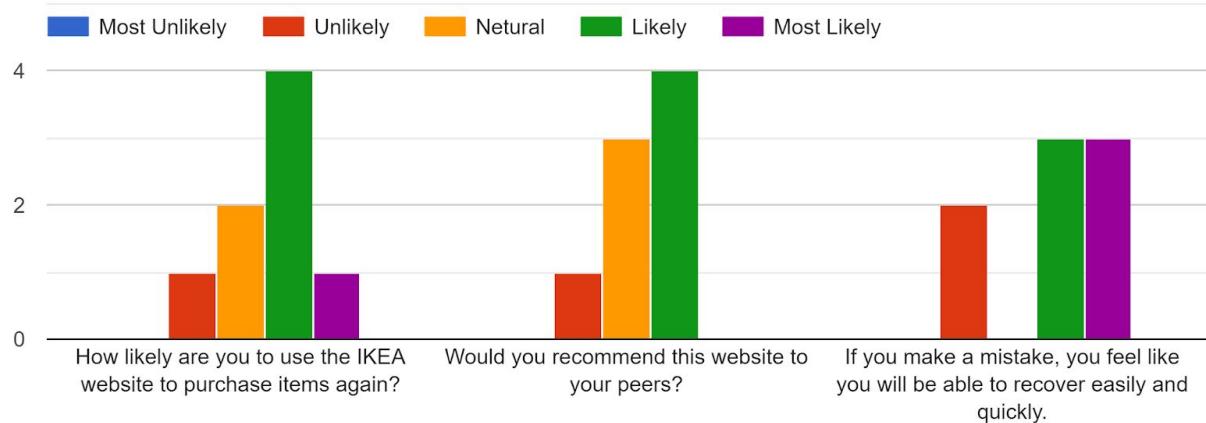


Where people bought their furniture for theri place:

- ikea, Target
- Amazon and Walmart
- Target, Walmart, Ikea, Facebook
- Facebook housing channel
- Ikea

Survey Results of the Post Test-Questionnaire

Please select the one that resonate with your feeling the most



What the participants enjoyed about the website:

- It's very easy to remove items from cart, gives a good overview of size of each product, etc. Easy to find the category of product you want.
- It was fun to browse the website. The images of the furniture gave the information they needed and were large.
- Feeling like i could afford things. But pretty user friendly website.
- I had freedom of choice for how I wanted to decorate my home
- I like the images while browsing
- Looking at different, colorful items
- It was fun to look at different options and pretend to decorate my future living space
- There were details on products

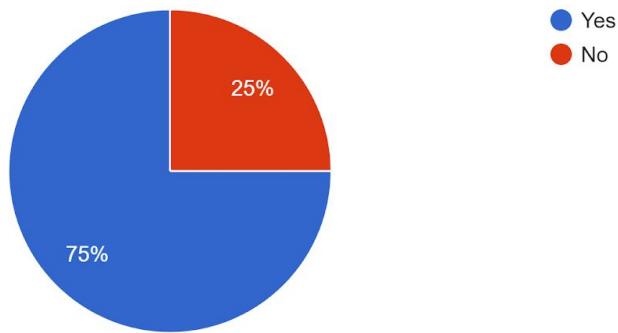
What participants liked least about the website?

- The buying options are wildly inconsistent, would have been nice if they were the same throughout, would have made the 500 dollar task so much easier. Also the offers being bathrobes and bike helmets instead of coupons was very confusing and frustrating.
- I didn't like how confusing it was to complete the tasks. The cart process could have been more clear. There was a lot of words on the cart page that I felt like I needed to read through but did not want to.

- Lack of easy shopping cart access, as well as lack of clarity in regards to product availability, prior to adding to cart.
- It doesn't have all choices that I would like for it to have. There should be more colors.
- having to enter zip code for price estimate
- The awful, confusing interactions like adding items into the cart.
- Not being able to always sort by price (low to high), some of the text was small (no hierarchy) even though I needed that information
- It was hard to see some of the buttons

Are there parts of the website that you found to be difficult?

8 responses



Where 6 of those people found it difficult:

- Looking for specific items, finding coupons.
- The cart page, along with finding specific furniture to the space you are trying to fill.
- The price range scrubber
- moving from cart to browsing catalog
- When the items are not there in the cart.
- Finding coupons

Why they found it difficult:

- The options for finding items based on price and appearance are really inconsistent. The coupons are very difficult to find.
- The cart page was confusing to navigate. And the search bar, along with the category drop menus were not descriptive enough.

- It was gimmicky and it kept on disappearing, and sometimes I can't tell how far I'm scrubbing
- I felt like I needed to restart my search to browse again
- That's where I can purchase the items.
- I was looking for a text that says coupons aside the discounts. It was nowhere to be found

Open Code Notes:

Appendix N: Videos of Usability Studies

Link to Two Playlists that each have four participant videos:

Link one includes P2, P3, P5 and P7 :

<https://www.youtube.com/playlist?list=PLDjJ8SNPiobDnGzoHYroSN5RAMSm9pZhy>

Link two includes P1, P4, P6, P8:

<https://www.youtube.com/playlist?list=PLvsno8ukdwHYioC3G1FeiQrqLRAxABy6>

References

[Figure 3] Ridester.(2018). A screenshot of address prompt at the beginning of the session.

Retrieved from <https://www.ridester.com/does-uber-take-cash/>

[Figure 4] Ridester.(2018). A screenshot of Home Delivery and Pickup in Store option.

Retrieved from <https://www.ridester.com/postmates-promo-code-existing-users/>

[Figure 4] HBC WAREHOUSE. (n.d.). A screenshot of Home Delivery and Pickup in Store

option. Retrieved from <https://www.abcwarehouse.com/buy-online-pickup-in-store>

[Figure 21] Outdoor Prolink. (2018). A screenshot of product availability.

Retrieved from <https://support.outdoorprolink.com/hc/en-us/articles/115008639407-The-product-I-want-is-out-of-stock-when-will-it-be-available-again->

Final Reflection

With all unexpected situations, we were able to finish our study and gathered the data we need for analysis, and captured important moments for further studies. Throughout the study, we felt that the need of having a testing kit is helpful. Once we figured out UserZoom, we were able to show up 15 mins before each study session, and quickly set up room and equipments for our participants.

However, if we can, next time, we would look into recruiting participants early on and send out recruiting applications weeks early so that we have time go screen our potential participants and give them time to get back to us. We would also want to recruit a few back up participants just in case under extreme circumstances our participants decide not to show up and we can contact our back up participants to make sure we are on schedule finishing our study sessions. We also encountered room booking issues that also related us back to not thinking far ahead enough. Even though, we started relatively early with our room reservations, we barely secured rooms and spaces that fit in our criteria of the study. During our study sessions, we would want to make an extra effort on observing our participants' tones, comments and facial expressions so that we can read underline and analyze deeper through their emotions.