JumpUSA.com USABILITY REPORT

EXECUTIVE SUMMARY

INTRODUCTION

JumpUSA.com sells a unique array of sports-specific training aids and exercise equipment. However, the site is hamstrung by a poor User Interface (UI) design. The current website does little to promote visitor confidence or perception of credibility. The site is outdated, cluttered, and insecure. This report highlights the website's flaws and offers solutions and recommendations.

METHODS

This research consists of the following methods:

- Competitor analysis
- Personas and scenarios
- Interview structure and script
- Survey
- Card sorting
- Diary study structure
- Heuristic evaluation
- Usability report

Competitor Analysis

The **competitor analysis** compares JumpUSA.com against the websites of three competitors: Dicks Sporting Goods, Online Sports, and Perform Better. The researchers selected these competitors because they represent the scope of competition: from large and national, to small and regional, to strictly online.

Personas and scenarios

Personas (or user archetypes) are fictional individuals that represent types of users, and scenarios (or use cases) are stories to tell how personas complete tasks (e.g., buying a basketball hoop) or behave when confronted with a given situation (e.g., get a quote on team uniforms). The personas in this report cover a range of user types confronted with different situations.

Interview structure and script

An **interview** is a structured conversation in which one person seeks information from another. The research team developed the interview to determine which features in a sporting goods website build visitor confidence. The researchers intend to recruit participants who have bought at least a thousand dollars' worth of sports training equipment in the past six months.

Survey

The research included a **survey** designed to determine the tendencies of people who have bought sports equipment online in the past six months. Similar to the interview, researchers wanted to find site features that build visitor confidence. The survey is intended to account for any user who has purchased sports training equipment online in the past six months.

Card sorting

Card sorts are used to generate an information architecture (a product's organization, structure, and labeling of content). They

help designers understand users' mental models—how they anticipate events and form explanations. This report includes an open card sort for which researchers asked participants to group and categorize forty-five JumpUSA.com products. The card sort goal was to understand the mental models of inexperienced users.

Diary study and structure

Diary studies enable researchers to collect in situ (as it occurs), longitudinal (for a long duration) data for a large sample. This report includes a diary study designed to discover how people research sports training equipment online. The study will be conducted in three phases and include diverse groups of spenders (high, medium, and low). The data gathered is intended for persona and scenario development and to isolate pain points.

Heuristic evaluation

In a **heuristic evaluation**, evaluators look for design usability flaws by judging a design on ten principles (heuristics) that make a user interface easy to use.

Usability report

Usability testing is the evaluation of a website or product by observing representative users attempting to complete tasks and scenarios. In the included usability report, researchers conducted a usability study with inexperienced users, who had little or no prior experience with JumpUSA.com. The researcher checked the site's usability by having participants complete a range of common eCommerce interactions.

RESULTS

Competitor Analysis

In the competitor analysis, JumpUSA was the only site not using HyperText Transfer Protocol Secure (HTTPS), which enables encrypted communication and secure connections between a user's computer and the website. This is an inexcusable liability for an eCommerce website. JumpUSA.com (along with Online Sports) does not have a mobile-friendly website, optimized for smartphones and tablets.

Card Sort

The card sort confirmed that the website's navigation should include a media section containing DVDs, books, and videos. It was the only category where all participants agreed.

Heuristic Evaluation

The Heuristic evaluation found that many pages on the site do not have a back button or a way to return to the previous state. The site is inconsistent with its use of breadcrumbs (only product pages have them).

The shopping cart isn't intuitive (a conclusion reinforced by the usability test). The continue shopping button is easy to overlook and disappears when the cart is empty.

The page layout is inconsistent. For example, specialty product pages and more information pages differ in layout and design and open in new windows. The new windows, coupled with the inconsistent design, make the website experience jarring for visitors.

The design is noisy (i.e., irrelevant units of information). The homepage has two substantial navigations (on the top and left side), testimonials, email signup, catalog request, header (or hero) slider, twelve products, and introduction copy. The introduction copy is at the very bottom of the page.

There is no easy way to find help. The site does not have a help center, frequently asked questions (F.A.Q.), or hover over suggestions.

Usability Test

The usability testing found two conclusions: the shopping cart is not intuitive, and more information about product links are not easy to recognize.

Two participants did not notice the remove button in the shopping cart, and one participant missed it entirely. Navigating from the shopping cart to the homepage proved challenging. One participant did not recognize that the logo linked to the homepage. Another participant mentioned—without prompting—that the cart should include navigation like the other pages.

Finding more information about specific products proved challenging. Every participant needed prompting to locate more information links, which are buried in a product's description.

RECOMMENDATIONS

Add a Frequently Asked Questions page. With a dormant chat, JumpUSA.com has only one way for visitors to find assistance: email or call customer service. This is an oversight that needs fixing.

Remove products from the homepage. During the usability testing, multiple participants commented that the homepage was "cluttered," and participants didn't click on the homepage product section.

The site does not explain the products on the homepage. They only clutter the design.

Give the site introduction preeminence on the homepage. The site introduction needs to be easy to recognize. In the usability tests session, none of the participants read the introduction. It is hidden beneath the products and above the footer navigation.

All of the participants missed the website introduction in the usability test.

Condense categories (e.g., remove empty categories). Empty categories plague the current design and confuse users. In the side category navigation alone, there are twenty-one empty categories and subcategories.

The red blocks cover empty categories in the left navigation.

Shrink the social media icons. One participant specifically mentioned that he found that the social media icons distracted from the logo and the top navigation. The social media icons should be updated (GooglePlus was discontinued on April 2, 2019).

The social media icons take up more space than the website logo.
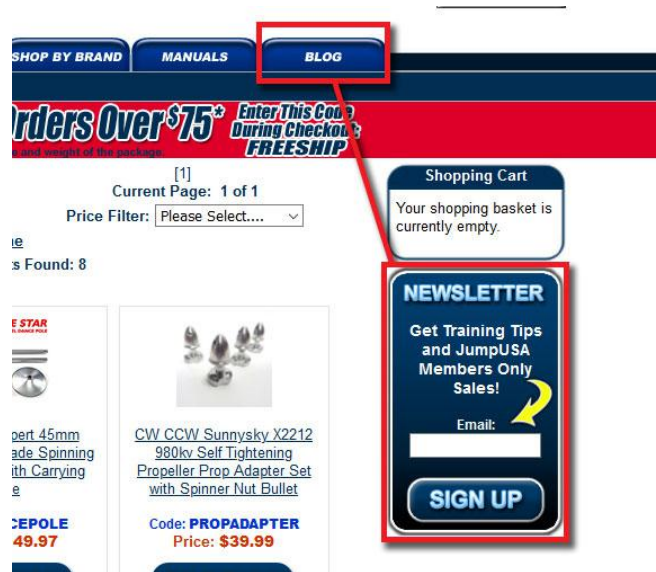
Update the copyright year. An out of date copyright leaves users with a perception that the site may be dormant (and the company out of business).

Remove the "blog" link from the top navigation. The blog link is an email signup link offering a free "Jump Training Manual." It is a newsletter rather than a blog, and the offer is the same as the newsletter signup.

The blog link is both redundant and mislabeled because it is the same as the newsletter signup.

Enable or remove the live chat feature. The site live chat feature is dormant. If it's not active, it is superfluous and should be removed.

Redesign the shopping cart. This research found that visitors have difficulty noticing the remove button, and the logo link to the homepage is not obvious. Adding a form of navigation (e.g., top) will make the cart user-friendly.
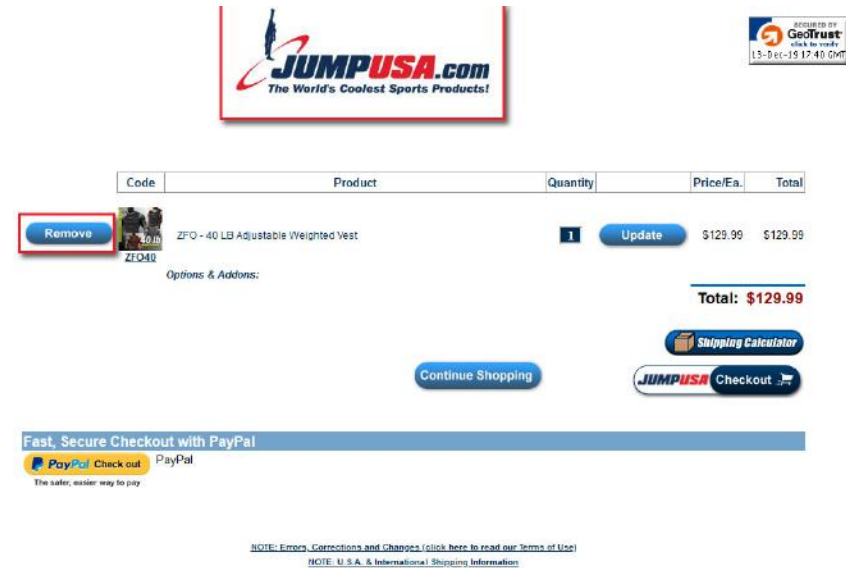
The remove button and the site logo performed poorly in the usability test.

Standardize page layout and design. Specialty products, sports (e.g., basketball), and more information pages have inconsistent designs. Establishing a design system will improve the site's usability.

WEBSITE OVERVIEW

Website: JumpUSA.com

COMPANY DESCRIPTION:

JumpUSA.com is an online sporting goods retailer and produces a line of specialized performance-based training equipment designed to increase users' vertical leaping ability (e.g., Jumpsoles designed to improve user's vertical leaping ability).

The website is still using HTTP (HyperText Transfer Protocol) rather than HTTPS (HyperText Transfer Protocol Secure), which enables encrypted communication and secure connections between a user's computer and the website. JumpUSA.com uses a static or nonresponsive website (not optimized for mobile devices). The site has a top, left, and bottom navigation. The top navigation includes three dropdown menus. The website has live chat software that appears to be offline (or not in use). The site includes a selection of products for ten sports: basketball, football, baseball, softball, soccer, volleyball, tennis, golf, MMA, and swimming.

DESIGN

- **Dated design:** JumpUSA.com follows a mid-2000s design aesthetic. The homepage is cluttered. It includes an exhaustive navigation on the left, a hero image (slider) above twelve products in the center, and an email signup box and testimonials on the right.

- **Not optimized for mobile devices:** JumpUSA.com is not optimized for mobile devices. With the spread of

smartphones and tablets, online retailers are impeding their success if they don't have a mobile version of their site or use a responsive (fluid and scalable) design.

- **Outdated copyright:** the website's copyright is 2014. Viewers are likely to assume the website is dormant because the copyright line hasn't been updated in five years.

- **Empty product categories:** the website navigation includes empty categories (include no products), which needlessly bloats the site.

- **Dormant live chat:** the website has live chat software, but the software appears to be dormant in the offline state.

JumpUSA has product categories without products.

JumpUSA doesn't have a mobile optimized webiste.
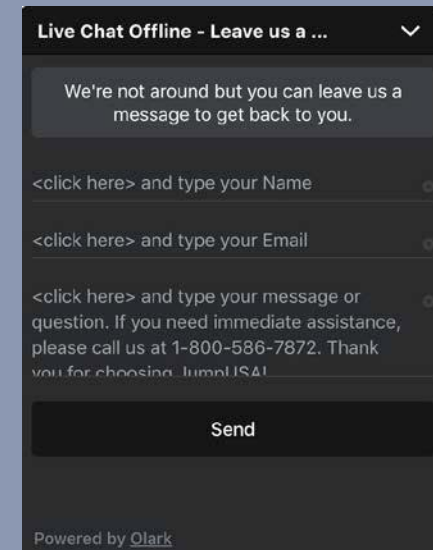
BUSINESS/MARKETING AND USER REQUIREMENT

JumpUSA is an online sports retailer. The following comes from its website: "JumpUSA supplies training aids and sports equipment worldwide for a complete array of competitive and individual sports."

JumpUSA needs its website to function (e.g., orders are taken and processed). It also wants its website to promote and market its line of training aids and sports equipment. The site needs to be an educational vehicle as well—inform the public about how JumpUSA's products work and their benefits.

Users also require the website to function, so they can make purchases if they desire. Users want to learn from the website – *why is their training equipment superior to a competitor's?* Users need to have confidence in a website if they're going to turn over private information (e.g., credit card numbers or mailing addresses).

COMPETITION

Three competitors' websites were selected to compare with JumpUSA.com. Dick Sporting Goods was chosen because it is a large national chain with a significant market share. Online Sports was selected because it is also an exclusive online sporting goods retailer with a fair amount of similar product offerings. Perform Better was included because it also focuses on sports training but with an emphasis on strength training and coaching. JumpUSA's emphasis is on sports specific training and coaching.

JumpUSA has a chat that is never online.

JumpUSA has an out of date copyright.

COMPETITOR ANALYSIS

	JumpUSA	Dicks Sporting Goods	Online Sports	Perform Better
Unique Features	JumpSoles (plyometric Training shoes) and other sports training aids	• Rewards program • National chain with over 720 locations	• Concierge service • Military & Institutional ordering	• Podcasts • Facility design • Seminars • Instructional videos
Design Strengths	Shop by goal option	• Clean, modern design • Easy navigation	Extensive bottom navigation	• Modern design • Easy navigation
Design Weaknesses	• Out of date copyright • Empty product categories • Cluttered layout	N/A	• Out of date copyright • Cluttered layout • Poorly categorized products	N/A

FEATURES

	JumpUSA	Dicks Sporting Goods	Online Sports	Perform Better
HTTPS	No	Yes	Yes	Yes
Chat	Yes (but is never active)	Yes	Yes	Yes
Responsive/Mobile	No	Yes	No	Yes
Product Compare	No	Yes	Yes	No
Shopping Cart	Yes	Yes	Yes	Yes

USER PERSONAS

Personas are user archetypes, fictional individuals used to represent types of users. They humanize users and help create empathy for users. The following user personas are for JumpUSA.com, an online sporting goods retailer that produces a line of specialized performance-based training equipment designed to increase users' vertical leaping ability.

Stacy Mason

1

ABOUT

Age: 28
Gender: Female
Occupation: H.S. Science Teacher and J.V. Basketball Coach
Status: Single
Education: M.S. Teaching

GOALS

- Stacy is the newly minted J.V. girls basketball coach, and she needs to procure team uniforms.
- She's looking for drills and training methods to teach her student-athletes.
- She wants to build her team's sense of unity and pride.

NEEDS

- Stacy needs a website that she can feel confident in.
- She needs customizable uniforms that feature her school's name, nickname, and colors.
- Stacy is new to coaching and is anxious to do a good job. She is looking for advice on drilling and coaching.
- Prompt inquiry responses & easy consultations.

FRUSTRATIONS

Lack of time, poor website navigation, slow responses

PERSONALITY

Extrovert	Introvert
Sensing	Intuitive
Thinking	Feeling
Judging	Perceiving

DEVICE & INTERNET

Desktop
Mobile
Social Media
Techincal Skill

SCENARIO

As a new Junior varsity girls basketball coach, it's Stacy's responsibility to purchase uniforms. She starts with an internet search and finds too many options. She doesn't have a clue where to begin, with so many similar options to choose from. Stacy takes a break from searching for uniforms and turns her attention to basketball training methods. After a deep search, she finds *Jumpsoles*. While browsing JumpUSA.com, she's a little turned off by categories that don't include products. She finds the custom uniforms page, sees the reasonable prices and calls JumpUSA's uniform department.

Debbie Hart

2

ABOUT

Age: 36

Gender: Female

Occupation: Lawyer

Status: Married with 2 Kids

Education: Juris Doctor (J.D.).

GOALS

- Debbie, the proud mother of two young children, is looking to purchase a portable soccer goal for her backyard and parties.
- Debbie is an active PTA member who has a seat on the Fundraising Committee. She is also searching for rolling bleachers for her town's elementary school.

NEEDS

- Debbie is very concerned with cybersecurity. She needs to be confident that a website will protect her private information.
- Debbie is a busy woman and needs to find what she's looking for quickly, or she'll look for alternatives.
- She only wants to do business with professional, credible organizations.
- Debbie lives on her smartphone. She uses it for her job and shopping. She expects websites to work well on her phone.

FRUSTRATIONS

Websites that aren't optimized for mobile devices, insecure websites, and dead links

PERSONALITY

Extrovert		Introvert
Sensing		Intuitive
Thinking		Feeling
Judging		Perceiving

DEVICE & INTERNET

Desktop	
Mobile	
Social Media	
Techincal Skill	

SCENARIO

Thorough in everything she does, Debbie navigates to JumpUSA.com while comparing prices for portable soccer goals online. She likes the price she finds but is disturbed that her browser is telling her the website is "insecure." Her nerves are eased slightly by the badge saying the website is secured by GEO Trust. Debbie becomes frustrated because the website is tiny on her phone, making it hard for her to move around. She persists because she wants to buy soccer goals for her daughter's birthday party. Debbie is further put off when she discovers that the website copyright is five years out of date. Unsure if she wants to trust the website, Debbie writes down the web address and decides to check the local sports store to see if it carries portable soccer goals.

Gary Gomes

3

ABOUT

Age: 51

Gender: Male

Occupation: Account Executive

Status: Married with 1 child

Education: B.S. Accounting

GOALS

Gary has a son who is a freshman in high school. His son's life ambition is to dunk a basketball. He wants to find a way to help improve his son's jumping ability and basketball skillset.

NEEDS

- Gary is looking for a system his son can use to increase his vertical leaping ability.
- Gary loves technology and gadgets. He wants to find out if there are gadgets and basketball-related training gear that will help his son.
- Gary appreciates a modern looking website that follows industry trends.
- He prefers product reviews to curated testimonials, which he doesn't trust.

FRUSTRATIONS

Poor website design, infomercial-like testimonials, and products without descriptions

PERSONALITY

Extrovert	Introvert
Sensing	Intuitive
Thinking	Feeling
Judging	Perceiving

DEVICE & INTERNET

Desktop

Mobile

Social Media

Techincal Skill

SCENARIO

Gary navigates to JumpUSA.com after discovering *JumpSoles* and viewing YouTube videos of them in action. He recognizes the product's potential and wants to learn more. Gary balks at the dated looking website. While on the site, Gary pokes around by searching through the 'by goal' navigation. He finds shooting aids that are worn on the elbow and strength training equipment that could help his son. However, Gary finds pages with images that don't load and testimonials, which he's very skeptical of. Because of the uniqueness of the product, Gary purchases *Jumpsoles* for his son despite his misgivings. If the product works as advertised, he'll consider making future purchases.

INTERVIEW

Research question: How can the JumpUSA website interface be improved to build user confidence?

Participants: Users who have purchased at least a thousand dollars' worth of sports training equipment online in the past six months.

The objective of this study is to determine which features in a sporting goods website build user confidence. JumpUSA sells sports training equipment to organizations, gyms, teams, coaches, and individuals. Many of these transactions cost over a thousand dollars. The researchers want to interview users who have made a sports training equipment purchase costing a thousand dollars or more in the last six months. Users need to have confidence in the product and feel that the website is credible if they are going to make a purchase. The interviewees for this research do not have to be customers of JumpUSA. The researchers are seeking insight on industry website features that build user confidence or have the potential to build user confidence.

The rest of this section is a guide/script for interviewers.

1. INTRODUCTION

My name is _____ and I work with JumpUSA. Thank you for coming in and chatting with me today! We will spend the next hour talking about your experience shopping for sports training equipment online.

I understand that you have purchased sports training equipment online during the last six months. We would like to learn about your experiences and preferences, so JumpUSA can ensure that its website best suits users' needs.

In another room, a couple of members of the website development team are watching this session. If you do not mind, I would like to make a recording of this session. This frees me from note-taking, so I am not distracted during our conversation. It also allows me to go back and review your comments later.

I am not a member of the web development team. Nothing you say today will hurt my feelings. Your honest opinions will help us improve the website. If, at any time, you cannot answer a question or do not have an opinion, please let me know.

We do ask that you sign a nondisclosure agreement whereby you agree not to discuss what we talk about today for two years. This provides JumpUSA with the time to implement changes to the website based on this research.

You are free to leave at any time. If you have a question at any point, please stop me.

2. WARM-UP

Question	Have you purchased sports training equipment online in the past six months that cost over a thousand dollars in total?
Follow-up	What did you buy?
Follow-up	Was the purchase for you or someone else?

If someone else	For whom did you make the purchase?
Question	Have you purchased sports equipment online on behalf of an organization in the last year?
If so	How many purchases have you made?
If more than one	Do you routinely have to procure sports equipment as part of your duties?

3. BODY

Transition	Great! Let's talk about your most recent purchase.
Question	Would you please describe your experience in detail?
Prompt (optional)	Discuss your buying experience. For example, your experience with the website and how you came to a decision on what to purchase.
Follow-up	Was the experience pleasant?

If "yes"	What made the experience pleasant?
Probe	Hmm, interesting. Could you explain the features of the website that helped make your experience pleasant?
If "no"	Oh, I'm sorry to hear that. What made your experience a negative one?
Probe	Hmm, interesting. Could you explain the features of the website that caused you the most frustration?
Transition	Very good. Let's talk about technology for a moment.
Question	First, do you consider yourself tech-savvy?
If "yes" (optional probe)	Could you please elaborate? What makes you tech-savvy?
If "no" (optional probe)	Could you please elaborate? What types of technology do you struggle with or don't like?
Question	The last time you purchased sports training equipment online, how did you access the website?

Prompt (optional)	For example, did you use a smartphone or a desktop at work?
Follow-up	Is that how you normally access sports training equipment websites?
Question	Is whether a website is mobile-optimized—looks good on devices like a smartphone—a factor in your decision to buy sports equipment online?
If "yes"	Why does a mobile-optimized website factor in your decision?
If "yes" probe	Has a website **not** optimized for mobile devices ever stopped you from making a purchase that you would have otherwise made?
If "yes" follow-up probe	Can you please describe the experience and your thinking process?
If "no"	Can you please explain why a mobile-optimized website is not a factor in your thought process?
Transition	Let's take a step back for a moment. Please reflect for a moment on how you find information about a product you're interested in purchasing on a sporting goods website.
Question	I want to pose a hypothetical for you. Suppose you want to buy some training equipment. You arrive at the website, and the equipment is not on the homepage. What do you do first?
Follow-up	What do you do next if that doesn't help you find the equipment?
Follow-up	Assuming this also doesn't help to find the equipment you are looking for, would you give up?
If "no"	What else would you try before you quit and go to a different website?
Transition	Good. Let's discuss website credibility next.
Question	What makes a website credible?
Prompt (optional)	What aspects of a website give you confidence that it is safe or reliable?
Probe	Hmm, why do you feel that way?
Question	What are the features of a website that is not credible?

Prompt (optional)	Think about a website that you've visited that you didn't trust. Why didn't you trust that website? What about it made you question its reliability?
Probe	Interesting, what makes you feel that way?
Question	Have you ever purchased from a website that you were unsure of because it had secure payment systems?
Prompt (optional)	For example, a payment option like PayPal or Google Checkout.

4. COOLING-OFF

Transition	For the last part of our discussion, I'd like to ask you about specific website features.
Question	Do you read product reviews before purchasing sports equipment?
If "yes"	Have product reviews ever convinced you to make a purchase?
If "yes" Follow-up	Have product reviews ever convinced you **not** to make a purchase?

If "yes" Follow-up	Does including product reviews make a website more credible?
Question	Have you used a search feature when purchasing sports training equipment?
If "yes"	Did you find it useful?
Question	Have you used a chat feature when purchasing sports training equipment?
If "yes"	Did you find it useful?
Question	Last question, is there anything else I should have asked you about?

5. WRAP-UP

Thank you so much for taking the time out of your schedule to meet with me today! This concludes our discussion on purchasing sports training equipment online. Do you have any questions for me? You have our contact information. Don't hesitate to reach out if any questions occur to you later.

SURVEY

Overview

This survey's purpose is to determine the tendencies of people who have purchased sports equipment online in the past six months. The researchers want to find which site interface features build user confidence. The desired respondents are people who have purchased sports training equipment online in the past six months. Respondents don't need to have purchased from JumpUSA. It is only necessary that respondents have visited the website.

JumpUSA.COM VISITOR SURVEY

Welcome

JumpUSA is conducting this visitor survey to understand its visitors and their needs and preferences better. The goal of this research is to improve JumpUSA.com so it can better meet the needs of its visitors.

Thank you for participating in this survey. Your information and answers are collected confidentially, which means your answers are in no way associated with your identity. This survey should take you under ten minutes to complete.

Have you purchased sports training equipment in the past six months?

- ○ Yes
- ○ No

(**Note:** The first question acts as a screener question. Any respondent who answers "no" for this question exits the survey because he or she is not the survey's intended audience.

How much have you spent on sports training equipment in the past six months?

- ○ Under $100
- ○ Between $100 and $250
- ○ Between $250 and $500
- ○ Between $500 and $1000
- ○ More than $1000

Have you purchased from JumpUSA in the past six months?

- ○ Yes
- ○ No

What is your preferred method of viewing e-commerce websites?

- ○ Smartphone
- ○ Tablet
- ○ Desktop/laptop computer

How do you view JumpUSA.com?

- ○ Smartphone
- ○ Tablet
- ○ Desktop/laptop computer

Is whether a website is optimized for mobile devices a factor when you consider buying?

- ○ Yes
- ○ No

In the past six months, have you bought from a website that is not optimized for mobile devices?

- ○ Yes
- ○ No

In the past six months, have you checked a company's social media accounts before buying from it?

- ○ Yes
- ○ No

Does a company's social media presence factor into your decision to buy sports training equipment from that company? Select the level of importance social media has on your buying decision.

○	○	○	○	○
Not at all	Slightly	Moderately	Very	Extremely

Do you read product reviews before buying?

- ○ Yes
- ○ No

Are product reviews an important factor for you when deciding whether to buy sports training equipment? Select the level of importance a product review has on your decision to buy.

○	○	○	○	○
Not at all	Slightly	Moderately	Very	Extremely

In the past six months, have you watched videos of sports training equipment in use before buying the product?

- ○ Yes
- ○ No

How important are product videos in your decision to buy sports training equipment? Select the level that applies to you.

○	○	○	○	○
Not at all	Slightly	Moderately	Very	Extremely

Have you used a website's chat feature?

- ○ Yes
- ○ No

Do you find chat features useful? Select the option that best fits your views.

○ Not at all   ○ Slightly   ○ Moderately   ○ Very   ○ Extremely

On a product page, how often do you click on recommendations for other items also purchased by customers who bought this product?

○ Often
○ Occasionally
○ Rarely
○ Never

Do you find product recommendations useful? Select the option that best fits your views.

○ Not at all   ○ Slightly   ○ Moderately   ○ Very   ○ Extremely

For whom have you bought sports training equipment in the past six months. Select all that apply.

☐ Yourself
☐ Family member(s)
☐ Friend(s)
☐ Team(s)
☐ Organization(s)
☐ Facility

What is your preferred method for contacting an online sporting goods retailer if you have a question or a concern?

○ Telephone
○ Email
○ Chat
○ Online form
○ I won't contact them

What is your age?

○ 18-24 years old
○ 25-34 years old
○ 35-44 years old
○ 45-54 years old
○ 55-64 years old
○ 65-74 years old
○ 75 years or older

CARD SORT

OVERVIEW

Type:	**Open Card Sort** The research team chose an open card sort because it is looking for insight into how inexperienced users categorize products and the language (or vernacular) they use to create labels.
In person / Remote	**In person** In-person card sorts provide a moderator who is available to guide participants, answer questions, and take notes.
Physical / Computer	**Computer** Researchers elected for a computer card sort because of the lack of physical space available to lay out the cards. The choice saved time in preparation and cleanup and data analysis (because the program automatically creates a distance table and cluster analysis.
Individual (moderated) / Simultaneous	**Individual** Individual card sorts allow researchers to gather think-aloud data, which provides additional insight into the groupings.

User Profile	**Buyer for others** The buyer for others is a profile of users who are unfamiliar with sports and athletic training.
Tool	xSort
Number of Cards	45

INTRODUCTION

Card sorts are used to generate an information architecture (a product's organization, structure, and labeling of content). They help designers understand users' mental models—how they anticipate events and form explanations. Participants are asked to sort cards into groups that make sense to them.

JumpUSA.com is redesigning its website and is exploring a new product navigation or structure. To generate new ideas about product organization, it conducted an open card sort. The purpose was to understand how its users think and organize information and the vocabulary they associated with the content.

The goal of this card sort is to understand the mental models of users who do not have experience in sports and athletic training. The research will provide insight into how "Buyer for others" users organize JumpUSA's products. It is important for a future redesign to be navigable for inexperienced visitors.

PARTICIPANT MESSAGES

WELCOME MESSAGE

Thank you for participating in our card sort! JumpUSA is looking to redesign its website, and we'd like to understand how to organize the site's products best. This research will make it easier for visitors to find what they're looking for on the site. We're asking for our users' help. The following exercise will help us see how you organize the products.

How it works: You'll be shown 45 product cards. Please look through and group the cards into categories that make sense to you. There are no right or wrong answers. We want to know if things are unclear. You can create subgroups and feel free to leave anything that doesn't fit in its own group. Once you have your groups, label your groups and subgroups (if you created any). Feel free to ask questions at any time. Your friendly moderator will be with you to walk you through the process and listen to your comments and answer any questions and ask clarifying questions.

INSTRUCTION PERIOD

The moderator walked participants through xSort, instructing them on using the program. The instruction period included the following:

- Starting a session
- Introducing both views, table, and outline
- Viewing card descriptions
- Creating groups and subgroups
- Labeling groups and subgroups
- Completing the task

This screenshot shows the moderator demonstrating how to create groups and subgroups in xSort's table view.
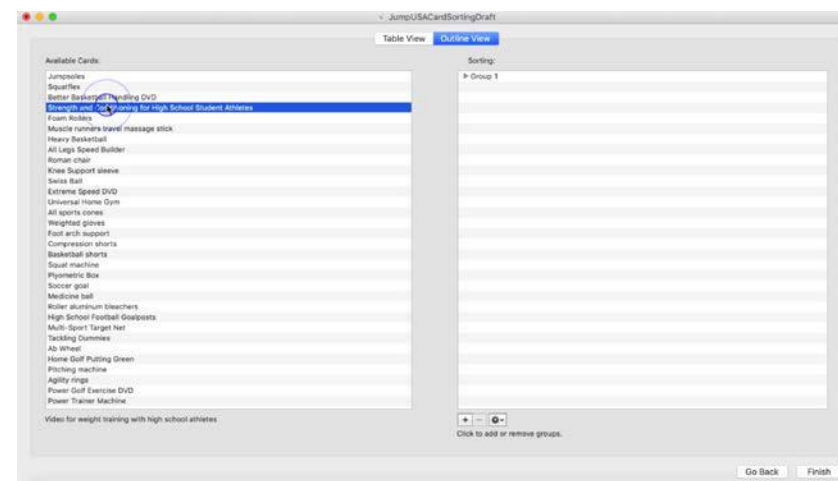
This screenshot shows the moderator demonstrating how to use xSort's outline view.

SESSIONS

OVERVIEW

Sessions	4
Average age	61
Gender distribution	2 male, 2 female
Average duration	45 minutes 59 seconds
Groups made	3 minimum, 6.5 average, 9 maximum
Average unclassified cards	0

The sessions were conducted in person on November 29th between 11 a.m. and 4 p.m. During the sessions, participants were encouraged to think aloud and discouraged from leaving cards unclassified.

CARDS

Researchers selected the following JumpUSA.com products for cards because they represent the variety and selection of the website's product offerings. Categories created for these cards will easily translate for the site's entire product catalog.

	Name	Description
1	Jumpsoles	JumpUSA's Jumpsoles are plyometric platforms that attach to shoes (designed to help the wearer increase his or her vertical leap).
2	Squatflex	JumpUSA's Squatflex is an anchoring platform that uses band-based resistance to strengthen the legs and improve one's jumping ability.
3	Better Basketball Handling DVD	DVD containing drills and workouts to improve a player's dribbling ability.
4	Strength and Conditioning for High School Student Athletes	Video for weight training with high school athletes
5	Foam Rollers	Used for self-massage, rehab, and balance.
6	Muscle runners travel massage stick	The massage stick is a tool for deep muscle massage, tension relief, and relaxation.
7	Heavy Basketball	The Heavy Basketball weighs twice as much as a regular basketball.
8	All Legs Speed Builder	The All Legs Speed Builder provides resistance (using elastic bands) to help develop explosiveness and speed.

9	**Roman chair**	A Roman Chair is exercise equipment for strengthening the lower back, gluteal muscles, hamstring, and abdominals.
10	**Knee Support sleeve**	It is a neoprene sleeve to support the knee.
11	**Swiss Ball**	Stability ball
12	**Extreme Speed DVD**	DVD of drills and techniques to improve athletes' speed.
13	**Universal Home Gym**	The universal Home Gym is a multi-exercise home gym with weight stack resistance.
14	**All sports cones**	Multipurpose cones for drills
15	**Weighted gloves**	Gloves for strengthening hands, fingers, wrists, and forearms.
16	**Push up resistance band system**	A band system that provides additional resistance to a normal pushup.
17	**Functional Training for sports book**	Book about strength training for sports.

18	**Foot arch support**	Arch support sleeve that helps alleviate heel spurs and plantar fasciitis.
19	**Compression shorts**	Compression shorts promote blood flow and increase the amount of oxygen that the wearers receive.
20	**Basketball shorts**	N/A
21	**Squat machine**	Plate loaded machine to perform safe squats
22	**Plyometric Box**	Platform to jump on – for jump exercising
23	**Soccer goal**	N/A
24	**Medicine ball**	A weighted ball used for strength training and rehab.
25	**Roller aluminum bleachers**	Moveable bleachers for indoor and outdoor events
26	**High School Football Goalposts**	N/A
27	**Multi-Sport Target Net**	It is an oversized portable net that can be used in many sports (e.g., soccer, golf, softball, or football).

28	Tackling Dummies	Tackling dummies are used for contact drills in a variety of sports (e.g., football, mix martial arts or basketball).
29	Ab Wheel	A device for strengthening the abdominals
30	Home Golf Putting Green	Home putting green designed for indoor use.
31	Pitching machine	Baseball pitching machine
32	Agility rings	Agility rings are used for quick feet and bounding drills.
33	Water Dumbbells	Foam and plastic dumbbells provide resistance when submerged. They are intended for pool use.
34	Pool Volleyball net	N/A
35	Power Golf Exercise DVD	A DVD of medicine ball exercises to build strength to drive the ball farther.
36	Power Trainer Machine	A machine to safely perform power cleans and deadlifts on.
37	Heavy Jump rope	Weighted jump rope

38	How to become a better athlete (DVD)	A DVD with drills for developing athleticism
39	Weighted vest	Weighted vests add extra weight to bodyweight exercises. They are often used for distance running, speed, agility, and quickness drills.
40	Speed parachute	The parachute offers resistance for speed and acceleration training.
41	Basketball Hoops	N/A
42	Volleyball Spike Training Device	The pre-positioned ball creates a "set" for every spike attempt.
43	Tennis ball machine	Battery operated machine that fires tennis balls
44	Backyard batting cage	N/A
45	Volleyball Drill Cart Rolling Basket	A volleyball cart for conducting drills in practice and warm-ups.

SESSION 1
Participant Information

PROFILE	Buyer for Others
GENDER	Female
AGE	60 -75
DURATION	44 minutes, 57 seconds

Groups

G DVDs
  - **C** Power Golf Exercise DVD
  - **C** Strength and Conditioning for High School Student Athletes
  - **C** Extreme Speed DVD
  - **C** How to become a better athlete (DVD)
  - **C** Better Basketball Handling DVD
  - **C** Functional Training for sports book

G MUSCLE MASSAGE PRODUCTS
  - **C** Foam Rollers
  - **C** Muscle runners travel massage stick

G SUPPORTIVE BODY GEAR
  - **C** Basketball shorts
  - **C** Compression shorts
  - **C** Knee Support sleeve
  - **C** Foot arch support

G PORTABLE STRENGTHENING PRODUCTS
  - **C** Heavy Basketball
  - **C** Weighted gloves
  - **C** Water Dumbbells
  - **C** Weighted vest
  - **C** Medicine ball
  - **C** Heavy Jump rope

G HOME SKILL IMPROVEMENT PRODUCTS
  - **C** Home Golf Putting Green
  - **C** Universal Home Gym
  - **C** Backyard batting cage
  - **C** Agility rings

G ACCOUTERMENTS FOR MULTIPLE SPORTS
  - **C** High School Football Goalposts
  - **C** Basketball Hoops
  - **C** All sports cones
  - **C** Soccer goal
  - **C** Pool Volleyball net
  - **C** Roller aluminum bleachers

G SPORTS-SPECIFIC SKILL DEVICES
  - **C** Tennis ball machine
  - **C** Volleyball Spike Training Device
  - **C** Pitching machine
  - **C** Multi-Sport Target Net
  - **C** Tackling Dummies
  - **C** Volleyball Drill Cart Rolling Basket

G ACCOUTERMENTS FOR MUSCLE STRENGTHENING
- C All Legs Speed Builder
- C Power Trainer Machine
- C Push up resistance band system
- C Plyometric Box
- C Ab Wheel
- C Roman chair
- C Swiss Ball
- C Squat machine
- C Speed parachute
- C Squatflex
- C Jumpsoles

SESSION 2
Participant Information

PROFILE	Buyer for Others
GENDER	Male
AGE	18-35
DURATION	19 minutes, 36 seconds

Groups

G Major Sports Equipment
- C High School Football Goalposts

- C Tackling Dummies
- C Roller aluminum bleachers
- C Basketball Hoops
- C Backyard batting cage
- C Pitching machine
- C Tennis ball machine
- C Multi-Sport Target Net
- C Volleyball Spike Training Device
- C Volleyball Drill Cart Rolling Basket
- G Smaller Sports Equipment
  - C All sports cones
  - C Agility rings
- C Home Golf Putting Green
- C Soccer goal

G Training Media
- C Better Basketball Handling DVD
- C Power Golf Exercise DVD
- C How to become a better athlete (DVD)
- C Extreme Speed DVD
- C Strength and Conditioning for High School Student Athletes
- C Functional Training for sports book

G Apparel
- C Knee Support sleeve
- C Basketball shorts
- C Jumpsoles
- C Foot arch support

C Weighted gloves

C Compression shorts

G Weight lifting

C Universal Home Gym

C Squatflex

C Squat machine

C Power Trainer Machine

C Roman chair

C Plyometric Box

C Push up resistance band system

C Foam Rollers

G Water Sports

C Water Dumbbells

C Pool Volleyball net

G Gym Accessories

C Heavy Jump rope

C Weighted vest

C Ab Wheel

C All Legs Speed Builder

C Speed parachute

C Muscle runners travel massage stick

G Balls

C Medicine ball

C Swiss Ball

C Heavy Basketball

SESSION 3
Participant Information

PROFILE	Buyer for Others
GENDER	Female
AGE	60 -75
DURATION	72 minutes, 54 seconds

Groups

G Exercise tools

C Ab Wheel

C Medicine ball

C Swiss Ball

G Speed tools

C All Legs Speed Builder

C Speed parachute

C Foam Rollers

C Push up resistance band system

C Agility rings

C Heavy Jump rope

G Weighted apparel

C Weighted vest

C Weighted gloves

- Sport devices
  - Multi-Sport Target Net
  - All sports cones
  - Jumping devices
    - Squatflex
    - Plyometric Box
  - Basketball tools
    - Heavy Basketball
    - Jumpsoles
  - Football
    - Tackling Dummies
- Exercise clothing
  - Basketball shorts
  - Compression shorts
- Books and DVDs
  - Strength and Conditioning for High School Student Athletes
  - Functional Training for sports book
  - How to become a better athlete (DVD)
  - Extreme Speed DVD
  - Power Golf Exercise DVD
  - Better Basketball Handling DVD
- Misc. support items
  - Foot arch support
  - Knee Support sleeve

- Muscle runners travel massage stick
- Bleachers
  - Roller aluminum bleachers
- Large sports equipment
  - Basketball
    - Basketball Hoops
  - Tennis
    - Tennis ball machine
  - Golf
    - Home Golf Putting Green
  - Soccer
    - Soccer goal
  - Volleyball
    - Volleyball Drill Cart Rolling Basket
    - Volleyball Spike Training Device
  - Baseball
    - Pitching machine
    - Backyard batting cage
  - High School Football Goalposts
- Large gym equipment
  - Universal Home Gym
  - Power Trainer Machine
  - Roman chair
  - Squat machine

Ⓖ Water activities

   Ⓒ Pool Volleyball net

   Ⓒ Water Dumbbells

SESSION 4
Participant Information

PROFILE	Buyer for Others
GENDER	Male
AGE	60 -75
DURATION	46 minutes, 30 seconds

Groups

Ⓖ Sports Equipment

   Ⓖ Tennis

      Ⓒ Tennis ball machine

   Ⓖ Soccer

      Ⓒ Soccer goal

   Ⓖ Multiple Sports Equipment

      Ⓒ Roller aluminum bleachers

      Ⓒ All sports cones

      Ⓒ Multi-Sport Target Net

   Ⓖ Football

Ⓒ High School Football Goalposts

Ⓒ Tackling Dummies

Ⓖ Basketball

   Ⓒ Basketball Hoops

   Ⓒ Heavy Basketball

   Ⓒ Basketball shorts

Ⓖ Volleyball

   Ⓒ Pool Volleyball net

   Ⓒ Volleyball Spike Training Device

   Ⓒ Volleyball Drill Cart Rolling Basket

Ⓖ Golf

   Ⓒ Home Golf Putting Green

Ⓖ Baseball

   Ⓒ Backyard batting cage

   Ⓒ Pitching machine

Ⓖ Sport Training Media

   Ⓒ Functional Training for sports book

   Ⓒ Power Golf Exercise DVD

   Ⓒ How to become a better athlete (DVD)

   Ⓒ Strength and Conditioning for High School Student Athletes

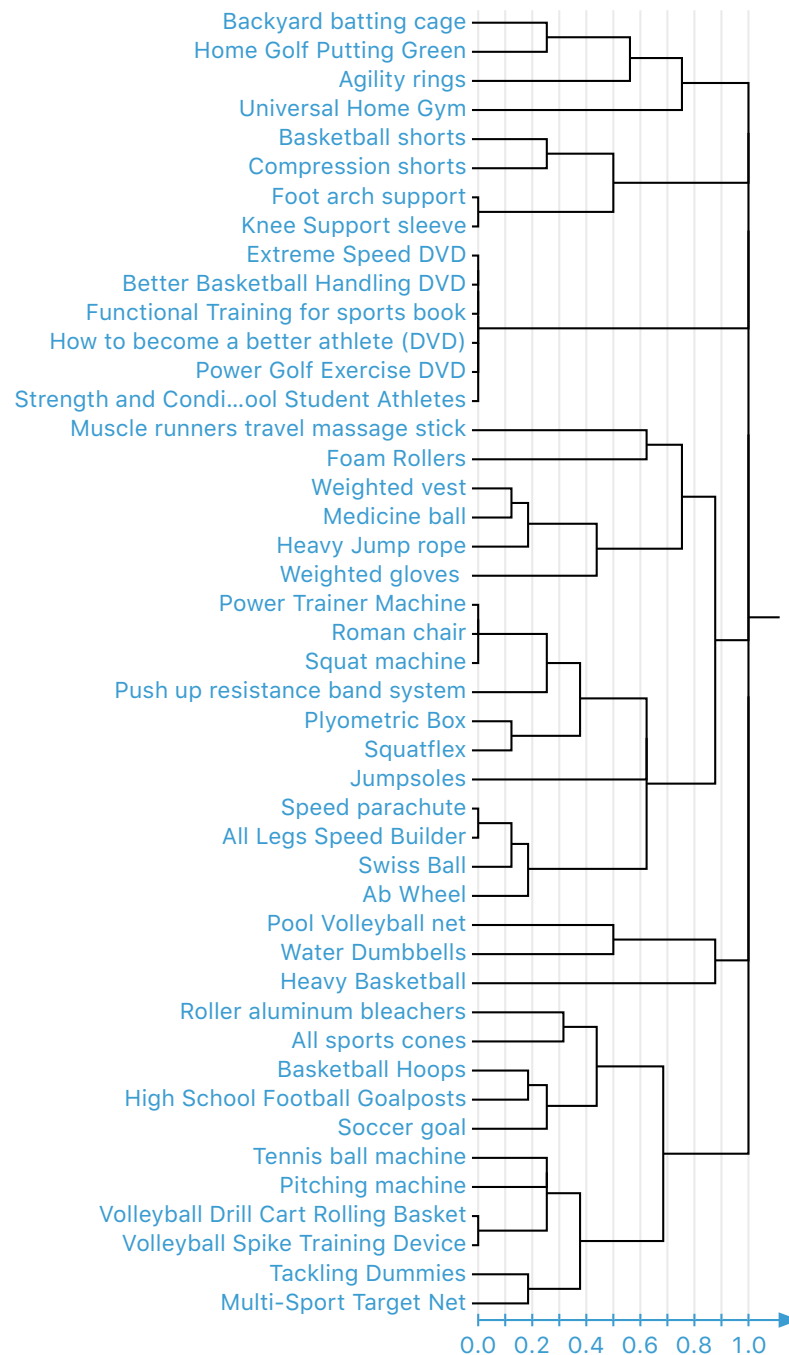   Ⓒ Better Basketball Handling DVD

   Ⓒ Extreme Speed DVD

Ⓖ Body Building

   Ⓖ Strength Building

      Ⓒ Weighted gloves

      Ⓒ Power Trainer Machine

© Universal Home Gym

© Push up resistance band system

© Weighted vest

© Ab Wheel

© Muscle runners travel massage stick

© Roman chair

© Squatflex

© Medicine ball

© Water Dumbbells

© Squat machine

Ⓖ Agility

© Plyometric Box

© Agility rings

© Swiss Ball

© Speed parachute

© Jumpsoles

© Heavy Jump rope

© All Legs Speed Builder

Ⓖ Comfort

© Knee Support sleeve

© Foam Rollers

© Compression shorts

© Foot arch support

ANALYSIS

The next page has a cluster analysis for "buyer for others" profile sessions conducted. All four participants agreed on a media section including DVDs and books. There was little agreement beyond a media section. Two participants (sessions three and four) grouped products by sports (e.g., basketball or soccer), and two participants (sessions one and two) grouped products by function (e.g., muscle strengthening, weight lifting, major sports equipment or sports-specific skill devices).

Backyard batting cage
Home Golf Putting Green
Agility rings
Universal Home Gym
Basketball shorts
Compression shorts
Foot arch support
Knee Support sleeve
Extreme Speed DVD
Better Basketball Handling DVD
Functional Training for sports book
How to become a better athlete (DVD)
Power Golf Exercise DVD
Strength and Condi...ool Student Athletes
Muscle runners travel massage stick
Foam Rollers
Weighted vest
Medicine ball
Heavy Jump rope
Weighted gloves
Power Trainer Machine
Roman chair
Squat machine
Push up resistance band system
Plyometric Box
Squatflex
Jumpsoles
Speed parachute
All Legs Speed Builder
Swiss Ball
Ab Wheel
Pool Volleyball net
Water Dumbbells
Heavy Basketball
Roller aluminum bleachers
All sports cones
Basketball Hoops
High School Football Goalposts
Soccer goal
Tennis ball machine
Pitching machine
Volleyball Drill Cart Rolling Basket
Volleyball Spike Training Device
Tackling Dummies
Multi-Sport Target Net

0.0 0.2 0.4 0.6 0.8 1.0

DISCUSSION

The card sorting was challenging for participants. On average, it took participants three-quarters of an hour to complete. All four remarked about how difficult the task was. All four participants uniquely grouped the products. Participants in sessions three and four opted to group more by sport. The only area of agreement, as mentioned earlier, was a media group including DVDs and books. In sessions one, two, and four, participants created some form of strength building group. However, the participants included different products in their respective groups, but all included all the plate loaded exercise machine cards. The participant in session three elected to group many of the same products in a group called "large gym equipment."

The moderator made it clear that participants were welcome to create subgroups if they desired. However, only three participants decided to do so. The participant in session one created no subgroups, and the participant in session two created just one subgroup, "balls." Conversely, the participants in sessions three and four made substantial uses of subgroups. The participant in session four put all forty-five cards into three groups and eleven subgroups.

The participant in session two remarked that he was grouping product as he might see them in a physical store. In session one, the participant mentioned that she had trouble coming up with labels for her groups. The participant in session three had difficulty finding a place for the tackle dummies card, and she mentioned that she would like to place cards into multiple categories (which is not supported by xSort).

After conducting the card sort, the researchers recommend conducting further card sorting with the same user profile. Four sorting is not enough to see trends. Another eight sortings (twelve total) would likely yield enough data to find trends. As it stands, the only for certain takeaway for this sorting is that JumpUSA.com should include a media section, and maybe a strength-building section (more sorts need to be conducted before this can be stated with confidence).

DIARY STUDY

OVERVIEW

Research Question	**How do people use the internet to research sports training equipment they intend to buy?**
Participants	People who intend to buy sports training equipment online.
Logging period	1 or 2 weeks
Incentive	$100 prepaid VISA card per week.
Format	Electronic (Email & Snippet)

The focus of this diary study is user behavior and general activity. For this longitudinal study, the research team wants to include diverse groups of spenders (High, Medium, and Low). The data gathered is to be used in persona and scenario development and to isolate pain points.

The diary study will be conducted in three phases based on how much participants intend to spend on sports training equipment. The total number of participants is fifteen (five high spenders, five medium spenders, and five low spenders).

The classifications are as follows:

- **High**: over $1,000 (logging period two weeks)
- **Medium**: $250 - $1000 (logging period two weeks)
- **Low**: below $250 (logging period one week)

STRUCTURE

Participants will be recruited from JumpUSA's customer pool and email subscribers. A pop advertisement on the company's website is a secondary option if needed. An exploratory email, including a screener questionnaire, will be sent to candidates. The questionnaire will be used to establish if the candidates are presently looking to purchase sports training equipment online or will be in the immediate future. Candidates' responses will be compared with their store purchasing history. Good candidates will receive follow-up email(s):

1. Checking their availability and interest in participating and

2. Scheduling a preliminary interview, if appropriate

In the interview, candidates will be vetted and given a detailed overview of the diary process.

To encourage quality entries, the study will be kept short, no more than two weeks. The length of the phases will vary based on the anticipated amount of research needed for each group. The assumption is that less expensive buying decisions will involve less research on the part of the consumer. As a result, the low spender phase will last one week, while the medium and high spender phases will last two weeks. The study incentive ($100 prepaid VISA card) will be distributed for each week of the study.

METHOD: EMAIL AND SNIPPETS

Every effort will be made to accommodate participant preference. Ideally, participants would In-Situ log (as it occurs) their activity, but this can be difficult and cumbersome and may lead to participant fatigue or cause them to dropout. For this diary study, they will log their entries via email.

For convenience, participants will be encouraged to create snippets as actions happen via a smartphone application that they can download and use. Participants use the app during or directly after they visit a website. They fill out a simple form with their goal, action(s), and the website they visited. Participants also rate whether the actions were helpful or unhelpful and whether the experience was positive or negative. The application will send participants reminders to complete a full entry at an interval and via a method selected by the participants (e.g., an email reminder in two hours or a push notification in four hours). Participants will be encouraged to include a photo. Links to video tutorials will be included in the participant deliverables.

This method was designed to make it easier for respondents to provide information on searching behavior, attitudes, and context. This study should provide a wealth of contextual user information for persona and scenario development. Also, this study has the potential to reveal customer journeys.

The primary drawback of this method is it can be tiresome and may not yield the detail necessary to provide insight. If participants visited multiple websites in succession, the method would require a snippet per site visited, which could become tiresome. Similarly, participants who opt for email only diaries (not using the app) may provide less detailed entries if they have visited multiple websites in succession. As with any diary study, the data gathered is only as effective as the level of detail provided by participants. The observations provided in this study will not be as insightful as those in a field study.

The results of this study will be compiled into an affinity diagram. For each participant, key points, observations, and comments will be gathered and organized into distinct clusters or groups. An affinity diagram will allow researchers to identify themes and trends, which will be valuable for persona and scenario development.

PARTICIPANT MESSAGE

WELCOME MESSAGE

Thank you for agreeing to participate in this study. The purpose of your diary is to gather data about how you search for training equipment online and the factors that influence your decisions. The goal of this research is to improve JumpUSA.com so it can best meet its users' needs. Your entries will be confidential. In filling out diary entries, we ask that you refrain from including personal information (e.g., people's names, phone numbers, email addresses) other than your own. If at any time, you have questions or concerns, please contact us at the phone number or email address provided.

PARTICIPANT INSTRUCTIONS

Anytime you search for training equipment online, we'd like you to create a diary entry. Please include the time, your goal, actions, attitudes, and any comments or reflections that you may have. For example, if you search google for a product or check a brand's social media accounts, create an entry.

If you've downloaded our Diary Study App, you can create snippets wherein you fill out a quick form for each site that

you've visited. The app will send you notifications (by your selected method) reminding you to complete a journal entry for the websites that you visited in an interval that you've determined (e.g., a text message at 7 p.m.).

For each of your entries, please include the following:

- Your goal
- The time you did something
- The website(s) you visited
- What device you used to visit the website(s)
- The action(s) you took
- Whether the action(s) were helpful
- Whether the experience was positive or negative
- What frustrations you had, if any
- Any additional reflections you might have

SAMPLE

The included sample entries are for your reference.

EMAIL ENTRY

Goal: My goal was to research basketball hoops. I am planning on buying a hoop for my son's birthday. I hope to find a hoop that is in my price range and is collapsible so I can take it down during bad weather.

Action: I spent my lunch hour researching basketball hoops on my work desktop computer. I started with a google search of "basketball hoops for sale." I visited Walmart's website and looked at a few different portable basketball hoops. I reviewed the product details, which I had to scroll to find. Walmart has a neat feature where it compares three similar products, which include price, size, and weight. I found the comparison very useful. After looking at the comparisons, I read a few product reviews.

Next, I visited Dick's Sporting Goods website and searched for "basketball hoops." I liked the large selection it had and that it advertised discounted shipping on certain models. I didn't spend too much time on the website because I had to get back to work.
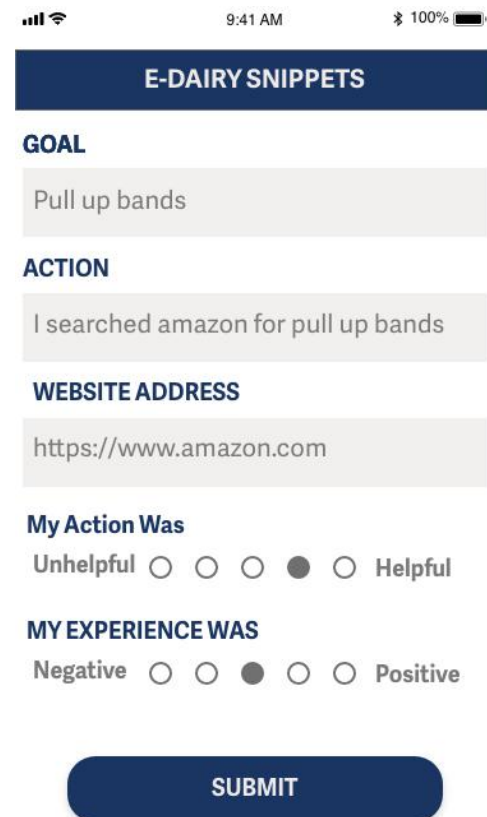
I liked:
- The model comparison on Walmart's website
- The assembly descriptions included on Dicks Sporting Good's website

I didn't like: That I had to scroll to find the product description on Walmart's website and the reviews where squeezed in the middle (I scrolled past them and had to go back)

Frustrations: I don't know a lot about the different types of portable basketball hoops. Apparently, they have different backboard sizes and weights. I really would like to know which type is best suited for a driveway and use by preteens.

Thoughts: I felt Walmart's website was a good spot to check. I was able to establish a price range for portable basketball hoops. Dick's Sporting Goods website was easy to navigate, and it had a large selection of basketball hoops.

SNIPPET ENTRY

9:41 AM ⚡ 100% 🔋

E-DAIRY SNIPPETS

GOAL

Pull up bands

ACTION

I searched amazon for pull up bands

WEBSITE ADDRESS

https://www.amazon.com

My Action Was

Unhelpful ○ ○ ○ ● ○ Helpful

MY EXPERIENCE WAS

Negative ○ ○ ● ○ ○ Positive

SUBMIT

HEURISTIC EVALUATION

INTRODUCTION

Jakob Nielsen, a co-founder of the Nielsen Norman Group, introduced ten usability heuristics (or rules of thumb) for evaluating websites in 1994. In this method, evaluators look for design usability flaws by judging a design on ten principles (heuristics) that make a user interface easy to use. This document is a heuristic evaluation of JumpUSA.com. For ease of reading, the report includes definitions for each heuristic.

SEVERITY RATINGS

0   I don't agree that this is a usability problem.

1   Cosmetic problem. Fix only if time permits.

2   Minor usability problem: given low priority.

3   Major usability problem: important to fix, given high priority.

4   Usability catastrophe: imperative to fix, given top priority.

HEURISTIC

#1 Visibility of system status

Definition	Severity	Evaluation
"Keep the user informed about the status of your system and give them feedback in a reasonable time." (Baxter, Courage & Caine, 2015)	0 Not a problem **1 Cosmetic** 2 Minor 3 Major 4 Catastrophic	The website contains numerous links and buttons that do not change state, i.e., there is no indication when the cursor hovers over or clicks the links. All of the "Ad To Basket" and image links have this defect.

HEURISTIC

#2 Match between system and the real world

Definition

"Use terminology and concepts the user is familiar with and avoid technical jargon. Present information in a logical order and follow real-world conventions." (Baxter, Courage & Caine, 2015)

Severity

0 Not a problem

1 Cosmetic

2 Minor

3 Major

4 Catastrophic

Evaluation

JumpUSA.com uses plain language and colloquial expressions. The three caveats are the use of slang, awkward copy, and jargon. The following example of awkward copy comes from its Basketball equipment page:

"Basketball is a game that is loved by everyone, kids, youngsters, and even adults. Basketball accessories are a craze in all basketball aspirants and fans. These basketball accessories not only depict your passion for the game but also aid in improving your skills for the game."

- The site uses the term plyometrics, which will be unfamiliar for people who are not knowledgeable about sports and athletic training.

- In multiple locations, the site refers to basketball hoops as "basketball goals," which is an inconsistency that may confuse users.

HEURISTIC

#3 User control and freedom

Definition

"Allow users to control what happens in the system and be able to return to previous states [e.g., exits and undo]" (Baxter, Courage & Caine, 2015)

Severity

0 Not a problem
1 Cosmetic
2 Minor
3 Major
4 Catastrophic

Evaluation

Many pages on JumpUSA.com do not have a back button or a way to get back to the previous state. The site does have breadcrumbs for some of its pages, but the practice is inconsistent. No second-tier page has breadcrumbs; only product pages have them. The JumpUSA shopping cart does have a continue shopping button, but it is easy to overlook. If users remove all the items in their shopping cart, the "continue shopping" button disappears, and the only way to return the site is via the logo. Also, the logo does not indicate that it is a hyperlink; users must be familiar with the convention.

The shopping cart's "continue shopping" button is easy to overlook and disappears when users empty the cart.

Breadcrumbs (example above) are used inconsistently across the site.

HEURISTIC

#4 Consistency and standards

Definition

"Be consistent throughout your product (e.g., terminology, layout & actions). Follow known standards and conventions." (Baxter, Courage & Caine 2015)

Severity

0 Not a problem
1 Cosmetic
2 Minor
3 Major
4 Catastrophic

Evaluation

The site is not internally consistent—the layout varies from page to page, almost at random. For example, the "more information" pages differ in layout and design; they open in a new window and link to products other than the product originally clicked on. The new windows and inconsistent design can jar users.

Homepage

"Squatflex" product page

The "SpringBak Insoles" more info page

HEURISTIC

#5 Error prevention

Definition	Severity	Evaluation
To the greatest extent possible, help users avoid making errors. Make it easy for users to recognize errors (i.e., error checking) and correct them before committing to an action.	0 Not a problem **1 Cosmetic** 2 Minor 3 Major 4 Catastrophic	The search feature does not have a suggestion or correction functionality. The shopping cart allows users to remove items easily. However, mistakenly clicked links often require users to rely on the browser's go back button.

HEURISTIC

#6 Recognition rather than recall

Definition	Severity	Evaluation

Definition

"Don't force users to rely on their memory to use your system. Make options or information (e.g., instructions) visible or easily accessible across your product when needed." (Baxter, Courage & Caine 2015)

Severity

0 Not a problem

1 Cosmetic

2 Minor

3 Major

4 Catastrophic

Evaluation

JumpUSA.com has an awkward password retrieval process and does not include a way to view recently viewed items.

- For returning customers, the website provides a password retrieval option. However, it is awkward, requiring a customer to check forgot my password then click the login button. The site doesn't instruct users to click the login button to retrieve their passwords.

- The site's interface does not include a recently viewed items feature, so it requires users to recall all the items they viewed if they desire to review an item or pick where they left off at a later time.

Retrieving a password has an awkward first step that requires users to click login.

HEURISTIC

#7 Flexibility and efficiency of use

Definition	Severity	Evaluation
Provide accelerators for experienced users but hide them from inexperienced users. Allow users to customize the system based on their frequent actions and preferences. **Accelerators:** an option or action that speeds up a process or interaction.	0 Not a problem **1 Cosmetic** 2 Minor 3 Major 4 Catastrophic	JumpUSA.com does not provide any accelerators, like allowing users to rebuy past purchases or single-click purchasing. The site provides multiple ways to navigate to a product (e.g., by goal or by sport) and access the shopping cart. Accelerators pose a growth opportunity for the website.

HEURISTIC

#8 Aesthetic and minimalist design

Definition

"Avoid irrelevant information and hide infrequently needed information. Keep the design to a minimum to avoid overloading the user's attention." (Baxter, Courage & Caine, 2015)

Severity

0 Not a problem
1 Cosmetic
2 Minor
3 Major
4 Catastrophic

Evaluation

There is a high level of noise (irrelevant units of information) on the JumpUSA.com homepage. It has two substantial navigations (in the header and category navigation on the left). The right column has an email sign-up and testimonials. The homepage also includes a hero (or header image) slider and twelve products that the site does not explain (e.g., best sellers or sale items). Viewers need to scroll to read the site introduction, located at the bottom of the homepage right above the footer. The current level of noise distracts from potentially essential signals (i.e., information), like site introduction, the 1-800 order number, and the catalog request link.

The homepage above the "scroll."

The site introduction is inexplicitly at the bottom of the homepage.

HEURISTIC

#9 Help Users Recognize, Diagnose and Recover from Errors

Definition

When errors occur, provide error messages in plain language (without error codes) that explains the problems and offer solutions.

Severity

0 Not a problem

1 Cosmetic

2 Minor

3 Major

4 Catastrophic

Evaluation

JumpUSA.com does an adequate job providing login and shopping cart error messages. The site uses red text to highlight missing fields that the user needs to fill. However, the site does not provide an error message when a search yields no results or when a product category is empty.

JumpUSA.com highlights missing fields in red.

The site does not provide an error message or an explanation for empty product categories.

HEURISTIC

#10 Help and Documentation

Definition	Severity	Evaluation
Provide users assistance when necessary, ensure the information is easy to find, relevant, and clear. It should include concrete steps for the users to take.	0 Not a problem 1 Cosmetic 2 Minor 3 Major **4 Catastrophic**	JumpUSA.com does not have a help center, frequently asked questions (FAQ), or hover over (or pop over) suggestions. Currently, users in need of help are forced to email or call customer services or the webmaster. This oversight may be driving away business.

REFERENCES

Baxter, K., Courage, C., & Caine, K. (2015). Heuristic evaluations. Understanding your users (2nd ed., pp. 434-435). Waltham, MA: Morgan Kaufmann.

Nielsen, J. 10 usability heuristics for user interface design. Retrieved from https://www.nngroup.com/articles/ten-usability-heuristics/

USABILITY TESTING REPORT

INTRODUCTION

Usability Testing is the evaluation of a website or product by observing representative users attempting to complete tasks and scenarios. The research team conducted the usability test with inexperienced users, who had little to no prior experience with JumpUSA.com. The goal of this study was to check the JumpUSA.com usability by having participants complete a range of common eCommerce interactions:

- Search for products
- Find more information about products and specialty products
- Find contact information
- Test the site's shopping cart

Participants were representative of the "buyer for others" profile. Participants completed five tasks. Each session lasted approximate twenty minutes. Sessions were run in-person, and participants were encouraged to think aloud. All were in the 60 to 75 age range, computer literate, spent over an hour a day online, and had made a purchase online in the past six months.

	Participant 1	Participant 2	Participant 3
Gender	Female	Female	Male
Age	60 - 75	60 - 75	60 -75
Hours online per day	2 to 4	1 to 2	1 to 2
Made a purchase online in the last six months	Yes	Yes	Yes
Session duration	20:50 min.	21:07 min.	15:09 min.
Date	12/6/19	12/6/19	12/6/19

TASKS

Participants were asked to complete the following tasks:

1. Find the Jumpsoles Frequently Asked Questions page.
2. Find the JumpUSA.com Customer Service email address.
3. Find a product designed to strengthen the upper body (chest or shoulders), and add it to the shopping cart.

   b. Remove the product from the shopping cart and return to the homepage

4. Find a DVD to help improve a basketball player's shooting ability.

5. Find more information about JumpUSA's resistance (and stretch) bands.

Task #1

Find the Jumpsoles Frequently Asked Questions page.

Participant	Time (approximate)	Completed	Notes	Evaluation	Recommendation
1	6 minutes	Yes	Needed assistance to complete task. *"I don't see an F.A.Q. page?"*	All participants had difficulty locating the Jumpsoles Frequently Asked Questions page. Participants one and three were given a little assistance. In both cases, participants wanted to use the website's search bar. Participant one remarked, "Usually there's a thing over here [indicating the bottom navigation] that says F.A.Q. I'm trying to figure out where they would have stuck it."	• Place Frequently Asked Questions on a separate page and include a link in the navigation bar. • Place the JumpSoles F.A.Q. link on the JumpSoles page, so visitors aren't required to click on a product link first. All of the participants commented that they couldn't find the link after clicking on JumpSoles in the left/categories navigation.
2	2 minutes 3 seconds	Yes	*"I wonder if I have to click on a product."*		
3	2 minutes 26 seconds	Yes	Needed a little prodding. *"There doesn't seem to be anything that tells you about JumpSoles."* *"That didn't jump out at me."* [after completing task]		

Task #2

Find the JumpUSA.com Customer Service email address

Participant	Time (approximate)	Completed	Notes	Evaluation	Recommendation
1	18 seconds	Yes	Participant one accessed the contact us page from the bottom navigation. *"Oh, it's there on the page you would think. "*	Participants found the customer service email address on the contact us page without difficulty. However, the customer service link located next to the shopping cart requires visitors to additionally click on the contact us link on the following page.	Have the customer service contact information on the page linking from the customer service link next to the shopping cart. The other links (e.g., Privacy Policy or Returns) should remain and be located under the contact information.
2	30 seconds	Yes	Participant two accessed the contact us page via the Customer Service link at the top of the site and then clicking on the contact us link on the next page.		
3	10 seconds	Yes	Participant three accessed the contact us page from the bottom navigation.		

Task #3

1. Find a product designed to strengthen the upper body (chest or shoulders), and add it to the shopping cart.

2. Remove the product from the shopping cart and return to the homepage

Participant	Time (approximate)	Completed	Notes	Evaluation	Recommendation
1	1 minute 12 seconds	Yes	Participant one tried to use the browser's go back button initially before clicking on the logo [the easiest way to go the homepage]. Participant one commented that the shopping cart ought to have site navigation on the top of the shopping cart.	Completing common tasks in JumpUSA's shopping cart is not an intuitive process (e.g., removing items and navigating to the homepage). One participant missed the remove button in the shopping cart, and another participant didn't realize the logo links to the homepage.	• Two participants browsed by the "Shop by Goal" menu to find an upper-body training device. The process can be eased by splitting the bodybuilding or strength training categories (there's considerable overlap between the categories) into subcategories (e.g., upper body, lower body, or arms).
2	4 minutes 23 seconds	Yes	Participant two had a little trouble finding an upper-body training device. She also navigated to the homepage from the cart by using the browser's go back button. *"It would seem it [remove button] should be located on the other side [near the update and checkout buttons]."*		• Place some form of navigation in the shopping cart. Move the remove button to where the update button is and move the update button down to above the shipping calculator button.
3	2 minutes 26 seconds	Yes	Participant three used the shop by goal menu to find a product. Participant three didn't notice the remove button in the cart. Instead, he updated the quantity to "0" and used the cart update button.		

Task #4

Find a DVD to help improve a basketball player's shooting ability.

Participant	Time (approximate)	Completed	Notes	Evaluation	Recommendation
1	1 minute 18 seconds	Yes	Participant one found a DVD without difficulty.	Participants were able to find instructional DVDs on shooting a basketball without difficulty.	The site currently allows for filtering by price. Adding a filter for sports or goals would make selecting videos on basketball or speed training easier for visitors.
2	1 minute 36 seconds	Yes	Participant two used the "DVD and Books" in the categories menu to locate her selection.		
3	1 minute 22 seconds	Yes	Participant three went through multiple pages of products to locate his choice.		

Task #5

Find more information about JumpUSA's resistance (and stretch) bands.

Participant	Time (approximate)	Completed	Notes	Evaluation	Recommendation
1	5 minutes 10 seconds	Yes	Participant one used the "Resistance Bands" link in the category navigation. She located JumpUSA's brand name bands via a product code: "JSTRETCH…"	Two participants struggled to find products by brands, and the site's common more information links on product pages are easy to overlook.	• Make the more information (pop-up) page links more noticeable. This can be accomplished by placing the link near the price or making the font larger or applying a hover or rollover effect.
2	6 minutes 9 seconds	Yes	Participant two first tried "Resistance Bands" before trying "Shop by Brand" and selecting JumpUSA. On the product page, she had difficulty finding the more information link. *"Well, that took a long time."*		• If JumpUSA wants to promote its brands, it should explicitly mention a product is a JumpUSA product in the description or include a small logo watermark on the product images.
3	2 minutes 26 seconds	Yes	Participant three navigated to JumpUSA products via the top navigation "Shop by Brand" menu and selecting JumpUSA.		

DISCUSSION

This study uncovered two primary issues for JumpUSA.com:

1. The shopping cart is not intuitive

2. More information about products (or product-specific F.A.Q.) are not easy to recognize.

Task three tested the shopping cart. Two participants did not initially notice the remove button, participant three didn't notice it all. Navigating to the homepage proved challenging. Participant two didn't recognize that the logo linked to the homepage, and participant one mentioned (without prompting) that cart should include navigation like the other pages.

Finding more information about specific products proved very challenging. All three needed a little assistance—mentioning it was a link to click on, and in one case that it was located in the product description. This was especially true for the JumpSoles F.A.Q. because participants assumed the site would have a designated F.A.Q. page, which is a standard website feature.

The research's primary recommendations are to redesign the shopping cart, include an F.A.Q. section, and find a way to make the more information links on product pages standout. Additionally, researchers recommend that JumpUSA.com add a way to filter product results by sport or goal (demonstrated by task four).

The research team recorded all of the sessions and made the entire second session available for viewing on YouTube.

Participants had trouble noticing the remove button in the shopping cart.

Participants needed a little assistance to find the JumpSoles F.A.Q. link. JumpUSA should make both the F.A.Q. and the more information links stand out so visitors can easily notice them.

PARTICIPANT DOCUMENTS

SCREENER

On average, how much time do you spend online each day. Select the option that best fits you.

- ☐ Fewer than 30 minutes
- ☐ Fewer than 60 minutes
- ☐ 1 to 2 hours
- ☐ 2 to 4 hours
- ☐ More than 4 hours

Have you bought anything online in the past 6 months?

- ☐ Yes
- ☐ No

CONSENT FORM

Thank you for participating in our usability research. Please read and sign the statement below:

I agree to participate in the usability study conducted by MW-Comm.com, and I understand that the video will be used for educational purposes and may be included in a blog post.

Signature: _____

Print your name: _____

Date: _____

TASKS

1. Find the Jumpsoles Frequently Asked Questions page.

2. Find the JumpUSA.com Customer Service email address.

3. Find a product designed to strengthen the upper body (chest or shoulders), and add it to the shopping cart.

   B. Remove the product from the shopping cart and return to the homepage

3. Find a DVD to help improve a basketball player's shooting ability.

4. Find more information about JumpUSA's resistance (and stretch) bands.

MODERATOR SCRIPT

INTRO

Hello [NAME],

Thank you so much for meeting with me today. My name is Michael and I'm going to walk you through this session.

I asked you here today to test JumpUSA.com. Our goal is to see how the website works for people who have no ties to company or experience with the website. You're helping us test the website—You're not being tested. You can't do anything wrong, so please don't worry about mistakes.

I want to know exactly what you think. Don't worry about hurting my feelings. I didn't create the website. The goal of this research is to make the website easier to use.

As we go along, I'm going to ask you to think aloud, tell me what you're thinking. This can be very insightful. If you have questions, please ask. But I may not be able to answer until the end of the session because we want to know what people will do without someone sitting with them.

I will try to keep the process moving. With your permission, our session will be recorded using screen recording software. It will only record audio and what's on the screen. Part of the session recording may be used in a blog post about the research.

WARMUP QUESTIONS

Let's start with a few quick warmup questions:

On a typical day, how much time do you spend on the internet?

_____

Do you have a favorite website?

_____

Have you bought anything online recently?

_____

Alright, let's get started with the tasks.

TASKS

INTRO

JumpUSA.com is queued up on the computer. Please take a couple of minutes and give me your first impressions of the website. What do you think of it? What can you do on the website, and what is it for? Please scroll around if you want, but don't click on anything yet.

FOLLOW-UP

If you were at home, what would you click on first?

Great. Thanks. Now I'm going to ask you to do some specific tasks. Please try to complete the tasks without using the search bar.

TASK #1

Jumpsoles are JumpUSA.com's signature product. Suppose you're interested in learning more about Jumpsoles. Please find the Jumpsoles Frequently Asked Questions page.

TASK #2

Find JumpUSA.com Customer Service email address.

TASK #3

Suppose you're looking to strengthen your upper body, find a product designed to strengthen the upper body (chest or shoulders), and add it to the shopping cart.

NEXT

On reflection, you decided you don't want to buy the product. Please remove the product from the shopping cart and return to the homepage.

TASK #4

Suppose a young person in your life is a basketball player, find a DVD to help her improve her shooting ability.

TASK #5

Suppose you're interested in resistance bands. Please find more information about JumpUSA's resistance (and stretch) bands.