

Usability Test Report

## **HOURCAR Website Usability Test Report**

Evie 2: Electric Subaru

Abbey, Ethan, Isak

Department of Writing Studies, University of Minnesota, Twin Cities  
WRIT 4501: Usability and Human Factors in Technical Communication

Nick Rosencrans

Dec 3, 2025

## Executive Summary

To: HOURCAR Team  
From: Evie 2: Electric Subaru  
Subject: Executive Summary of Usability Test  
Semester: Fall 2025

---

This executive summary shares an overview of the purpose and research question, methodology, results, and recommendations from our team's usability test on the HOURCAR Website.

### Purpose and Research Question

Our usability test focused specifically on the Evie and HOURCAR websites and how they interact with the newly created Wiki page. We focused our evaluation on the ease of use of each site, along with its interaction with, or the integration of, the Wiki page. We sought to understand how users interact with each site, with a particular emphasis on how they navigate between the Wiki and the main services site.

To uncover this information, we established the following research objectives:

- Can users accurately describe the differences between Evie and HOURCAR services in a reasonable time (5 minutes)?
- How quickly do users navigate to the Wiki page?
- Can users determine the best service and membership for their needs?
- How do users locate information, and how do they perceive the search?

Our specific research question was as follows: **How do the users of HOURCAR's websites research, conceptualize, and differentiate between the services?**

### Methods

There were four methods of information gathering used during the test.

1. The background questionnaire gathered demographic information. (Appendix A).  
Participants supplied information surrounding their commuting habits, including frequency, common methods of transportation, and experience with car share services (Appendix A).
2. During the test, participants were asked to complete ordinary tasks relevant to what the HOURCAR audience may search for on the website. After participants completed the scenarios, they were given post-task questions. All of the questions asked them to rate the ease or difficulty of the task.
3. When the test was over, the participants were given a debriefing interview to inquire about their impressions of the site and the testing experience in depth.
4. After the debriefing interview, participants made selections from a set of attitudinal measurements that described the HOURCAR Website based on their experience using it.

## Results

All participants completed all scenarios, with an average 56% completion rate. Time-on-task varied between 48 seconds (Scenario 2) and 7 minutes and 11 seconds (Scenario 1); generally, all scenarios were completed in under 7 minutes. Participants were able to complete a few tasks without difficulty. However, participants encountered the following issues, which are fully explained in the report:

- The site does not aid in the conceptualization of the services offered by HOURCAR and Evie.
- Inconsistent navigation tools make it difficult or unpredictable when moving across sites.
- Site graphics detract from the credibility of the site and do not aid in navigation.

Participants generally rated tasks on a scale from **1 to 5**, with the most common rating being 4 and an average rating of 3.5 on a five-point scale.

## Discussion

Based on our research and testing, we found that users had varying experiences interacting with the site. The majority of users found it difficult to distinguish between Evie and HOURCAR services initially, though understanding grew as the test continued. Along with this, users found it difficult to determine how to charge their vehicles, and those who did not express confidence in their decisions. This confusion seemed to be rooted in an inability to navigate and identify the needed information on the Wiki page. The same is true for locating insurance information on the Wiki page. The culmination of these issues resulted in a poor user experience; those who participated in our usability testing expressed a great amount of frustration surrounding navigation and identifying information.

Identifying these specific pain points experienced by users is essential to improving future iterations of the site. Preventing users from experiencing issues and frustrations during their time on the Evie and HOURCAR sites will contribute to a positive overall brand image and increase the number of users who sign up for memberships.

## Recommendations

Based on our results, we have suggested the following recommendations:

- Create deliberate and clear phrasing, hierarchy, and organization of information.
- Add a graphic or table to differentiate between existing services on the homepage.
- Increase consistency in the destination and styling of links on the website.
- Create an accurate and clear index of Wiki content.
- Make the search function more useful, prominent, and universal across sites.

## Contents

<b>Executive Summary .....</b>	<b>2</b>
Purpose and Research Question.....	2
Results.....	3
Discussion.....	3
Recommendations.....	3
<b>Contents .....</b>	<b>3</b>
<b>Introduction.....</b>	<b>6</b>
Participants.....	7
Targeted Participants .....	7
Actual Participants .....	7
<b>Methods.....</b>	<b>8</b>
Background Questionnaire.....	8
Tasks and Scenarios with Post-Task Questions.....	8
Debriefing Interview and Attitudinal Measurements .....	8
Product Reaction Cards.....	8
Debriefing Interview .....	8
<b>Results .....</b>	<b>9</b>
Scenarios .....	9
Scenario 1.....	9
Scenario 2.....	12
Scenario 3.....	13
Scenario 4.....	14
Scenario Time Completion .....	16
Post-Task Rating.....	17
Product Reaction Cards.....	18
Debriefing Interview .....	18
<b>Discussion.....</b>	<b>22</b>
Scenarios .....	22
Scenario 1 .....	22
Scenario 2 .....	23
Scenario 3 .....	23
Scenario 4 .....	24
Global Takeaways .....	24
Scenario Time Completion .....	25
Post-Task Rating.....	26
Product Reaction Cards.....	27
<b>Conclusion.....</b>	<b>27</b>

<b>Recommendations</b> .....	<b>29</b>
Recommendation 1: Implement clear and deliberate phrasing, along with intentional organization.....	29
Recommendation 2: Add a graphic table that clearly differentiates services on the homepage.....	30
Recommendation 3: Be upfront and consistent about where links lead before users click on them.....	31
Recommendation 4: Create a prominently featured categorical index of Wiki content.....	31
Recommendation 5: Make the search function more useful, prominent, and universally available.....	32
<b>References</b> .....	<b>34</b>
<b>Appendices</b> .....	<b>35</b>
Appendix A: Background Questionnaire & Responses.....	35
Table 5	
Background Questionnaire Responses.....	36
Appendix B: Post-Task Questionnaire.....	37
Appendix C: Product Reaction Cards .....	38
Product Reaction Cards for HOURCAR.....	38
Appendix D: Scenarios .....	39
Scenario 1 .....	39
Tasks, Scenario 1 .....	39
Post-Task Questions, Scenario 1 .....	39
Scenario 2.....	39
Tasks, Scenario 2 .....	39
Post-Task Question, Scenario 2.....	40
Scenario 3 .....	40
Post-Task Question, Scenario 3.....	40
Scenario 4 .....	40
Tasks, Scenario 4 .....	40
Post-Task Question, Scenario 4.....	41
Appendix E: Debriefing Interview Questions.....	42



### **Before we start:**

This usability test session was performed before the introduction of *Evie Loop*, the consolidation and redesign of service homepages, and the announcement of a rebranding. We'll touch on these changes in our [recommendations to HOURCAR](#). We did not test the new version of the website, nor were we involved in its development in any way. Our findings may not be directly transferable. We highly recommend testing the new website and branding in a similar way *before* releasing it.

## Introduction

This report describes the results of conducting a usability test during the development of the HOURCAR Websites ([eviecarshare.com](http://eviecarshare.com), [wiki.hourcar.org](http://wiki.hourcar.org), [hourcar.org](http://hourcar.org)). HOURCAR is a local nonprofit that has operated carshare services in the Twin Cities area since 2005. They cover most expenses of car ownership (fuel, insurance, maintenance, parking), allowing members to drive their cars for a predictable hourly fee. HOURCAR has three websites: informational pages for their two services and a wiki. The main informational websites act as a first impression for new users, while the wiki provides more specific information. The usability test involved observing five participants as they completed key tasks on HOURCAR's suite of websites.

Our report will address our purpose and methodology during usability testing, and results and recommendations for HOURCAR.

Our usability test focused specifically on the Evie Carshare website and the newly integrated Wiki Page. The HOURCAR team posed the following questions for us:

- What's the first impression for new visitors? Could they understand the differences between our services clearly, and be able to pick the better one according to their goals and purposes?
- How's the newly integrated Wiki page working for users— is it as helpful and accessible as it could be? Are there improvements that could be made with the search function?
- What could existing members use the website for? How can we make the website more appealing for active users to browse on?

While building the usability test, we used a streamlined guiding research question: **How do the users of HOURCAR's websites research, conceptualize, and differentiate between the services?** We created scenarios that tested out participants' conceptual understanding of each service and how they navigated through HOURCAR's websites while looking for varying information.

We addressed whether or not participants were able to complete tasks, and we measured the completion times for each task (time to completion). We set pessimistic expectations as benchmarks for each scenario's time to completion.

To record the issues our participants encountered, we logged both critical and noncritical issues. Critical issues were those that deterred participants from successfully completing a task, whereas noncritical issues were those that slowed down but did not prevent successful completion of the task.

To gauge participant sentiment, we asked participants to describe their experiences after every task and holistically after all tasks were over. After each task, we asked them to rate how easy the task was on a scale of 1 to 5, then asked them questions pertaining to the task. After all tasks were over, we asked them to select from the provided [product reaction cards](#), then asked them questions about their experience and confidence with HOURCAR's websites.

## Participants

Please refer to [Appendix A](#) for a complete table of participant backgrounds.

### **Targeted Participants**

According to the client information provided to us from HOURCAR, they have a higher-than-average amount of low-income members. Additionally, Hourcar has active members who do not have a smartphone, instead unlocking vehicles with Metro Transit Go-To Cards.

While recruiting participants, we asked whether they owned a smartphone and whether they had experience with carshare, car rentals, bike/scooter share, or bike rentals. In the event that several potential participants were interested, we would have selected participants with varying smartphone use and experience with shared mobility services.

### **Actual Participants**

We recruited five participants for this usability evaluation. Due to time and budget constraints, we were unable to attract interest from a wide variety of participants. All participants were our friends and/or classmates. We used a standard script and avoided casual interaction for the duration of the test to minimize the impact of our relationships with participants.

While recruiting, two participants indicated they had experience with carshare services, but we later determined they did not. One participant indicated they did not have a driver's license. One participant had experience with traditional car rentals, and four had experience with bike/scooter share services.

## Methods

The evaluation used a usability test that involved representative users and asked them to complete realistic web tasks. The usability test involved participants who were likely users of HOURCAR products and services. Procedures included a background questionnaire, tasks based on scenarios and post-task questions, and a debriefing interview with attitudinal measurements about the HOURCAR Website. A “think-aloud” protocol was used throughout the test. These procedures are described more fully below.

### Background Questionnaire

Participants completed a demographic and background information questionnaire. The questionnaire asked about demographic information, experience, and familiarity with HOURCAR or their websites (see [Appendix A](#)).

### Tasks and Scenarios with Post-Task Questions

The participants were provided a task description, asked to read it out loud, and start the task. Time-on-task measurement began when the participant started the task. Once the participant completed a task, they completed the post-task questionnaire and elaborated on the task session with the moderator (see [Appendix B](#)). The moderator instructed the participant to “think aloud” so that a verbal record existed of their interaction with the website. The logger observed and entered user behavior, user comments, and system actions in a data worksheet.

### Debriefing Interview and Attitudinal Measurements

The moderator asked participants to share impressions of the HOURCAR Website after all task scenarios were attempted.

#### Product Reaction Cards

Part of the interview involved a methodology from the Microsoft Desirability Toolkit, asking participants to select words from the “Product Reaction Cards” that described the design based on their experience using the HOURCAR Website. (see [Appendix C](#)). Product Reaction Cards are a tool used in the field of Computer Science to understand the desirability and user experience of a product. They consist of a set of descriptive words or phrases that participants choose from to express their experience with the product. The cards provide a quick and effective way to gather rich insights into the user's perception of the product.

#### Debriefing Interview

To end the usability test session, the moderator asked participants to answer open-ended questions about their testing experience. We asked about their impressions of the site, the distinction between Evie and HOURCAR, their selection of a membership plan, their confidence while using the Wiki, and their sentiment of HOURCAR as a whole. For a complete list of debriefing questions, refer to [Appendix E](#).

## Results

### Scenarios

We asked our participants to perform four scenarios and rate each task on a scale of 1 to 5, **1** being **very difficult** and **5** being **very easy**.



Refer to the [methods](#) section and [Appendix D](#) for more information about scenarios.

For brevity, we'll refer to each participant as **P1, P2, P3, P4, and P5** from now on.

### Scenario 1

**P1** started by examining the hero section on the Evie homepage, particularly noting Evie's environmental angle. Looking for more information, they clicked on the *How* button, bringing them to the Wiki page. On the Quick Start Guide, they immediately read the bullets at the top describing both Evie and HOURCAR. They were confused and intrigued about Evie's *home area* term, but gave an accurate working definition of both services. They went back to the Evie homepage to find out how to join, mentioning that they missed the more in-depth definition of Evie in the first section. They expressed: "I feel like the HOURCAR stuff is kind of hidden lowkey... Like I feel like HOURCAR would get its own thing". From there, they scrolled down the page to the rate sheet, where they read back the *Evie works with HOURCAR* section, implying they were surprised by this information. Curious about pricing, they went back to the Wiki (using the *How* link) and clicked the *Fees* sidebar shortcut, but backtracked when they realized its information was for "extra stuff". Back at the Evie homepage, they clicked the *Cost* header link. They immediately expressed confusion about whether the membership plans and rates applied to both services, asking the moderator for help. The moderator encouraged them to read the text below the rate sheet. From there, they clicked the *Compare All Plans* button, noting HOURCAR's lower rates. Finding where to sign up, they scrolled to the top of the page and pressed the *Join* button. The moderator asked them to choose a membership plan. They backtracked to the Evie homepage, scrolled to the rate sheets, then clicked *Compare All Plans*. Comparing the plans, they saw the *Income-based Plan* on the Access plan card and pressed *View Requirements*, then quickly used the graphic to verify our given income was eligible and chose the Access plan. They noted that they didn't notice the Access plan until the moderator asked them to choose a plan, and later mentioned the separation between the standard and discounted rates threw them off.

They rated this task a **3.5 out of 5**. They were able to properly define both services and identify the Access Plan. They described Evie as a "quick", "one-way" trip that has an "environmentally friendly identity". They were less confident defining HOURCAR: "I don't know as much about HOURCAR, like on a brand level, because what I see here is Evie". They correctly guessed that HOURCAR is a "longer, round-trip thing" that you "schedule in advance".

**P2** read the hero section on the Evie homepage, then quietly scanned the entire page top to bottom. They scrolled back to the rate sheet, examined it for a while, then proceeded by scrolling up and pressing the *How Evie Works* button in the first section, and started reading the Quick

Start Guide. The moderator reminded the participant to voice their thought process, and they responded with a working definition of Evie: a Lime-like service with a hybrid vehicle fleet that they could “use for running errands”. They noticed a membership is required and clicked the *Membership* header link. They reviewed the registration process, misinterpreting the \$25 referral credit as being automatically applied to all new accounts. They quickly skimmed the rest of the *Application and Membership* page before clicking the next header link, *Fueling*. This brought them to the *How to Charge* page, which they skimmed and commented on the convenience of charging. They clicked the next header link, *Trips*, and skimmed the *Trip Troubleshooting* page. Proceeding to the task of joining, they clicked the *Home* header link, then *Quick Start Guide* in the sidebar, *Join* in the sidebar, then the *Become a Member* button in the *Join* section. Directed to a page on the HOURCAR website, they clicked *Apply Online*. Seemingly looking for membership plans, they tried to skip the account creation page before backtracking to the HOURCAR sign-up landing page. They clicked the header logo and went to the HOURCAR homepage. They scrolled down to the rate sheet and chose the Backup Plan because they “wouldn’t use it a ton”. They clicked the *Join* button on the Backup Plan card and navigated to the registration page.

They rated this task a **4.5 out of 5**, but were unable to define Evie or HOURCAR entirely, nor identify the Access Plan. They described Evie as a car reservation you “hold” that needs to stay “within a certain distance”, while describing HOURCAR as being reserved “for a short time”. They said, “You can reserve [*sic*] an HOURCAR while Evie’s kind of available near you”.

**P3** started by reading the hero section to learn about Evie. To learn about HOURCAR, they hesitated for a while before scrolling down the page to search for references to HOURCAR. After not noticing any references, they used their browser’s built-in page search function to search for “hour ” (including the space at the end), which returned no relevant results. They clicked the *Where* and *Cost* header links, which directed them to sections of the homepage, saying, “Oh, this is all just one page, then”. They tried the final header link, *How*, which directed them to the Wiki instead. They read the bullets at the top of the Wiki homepage describing each service. They expressed confusion, but offered a working definition:

“I still don’t know exactly what HOURCAR is. I know how it works—I guess it’s a round trip—they start at and end at the same hub location, and you schedule how long you’ll need the car. So I guess it’s not really a type of car—it’s like the sort of trip you purchase with the car?”

Moving on to the membership selection task, they used the browser back button to return to the Evie homepage. They pressed the *Cost* header link, which scrolled the page to the *Pick a Plan* section. They read the top explainer paragraph about Evie’s trips before proceeding to the rate sheets. They compared the Everyday and Backup plans side-by-side before hesitantly choosing the Backup plan due to a perceived lack of continual use in our given scenario. They pressed the *Join* button on the card. Directed to the *Join Today* landing page on the HOURCAR website, they hesitated before clicking the *Apply Online* button, saying, “This is scary”. They later elaborated on this comment, saying:

“I mean, it was kind of a ... scary form. Like, especially once I got to the application ... the fact that it has like a bunch of different download links. Like, I feel like it would have had me download something [malicious].... The big thing [page title text] said ‘Click

here', but I couldn't click there. Like, it seemed like those websites where you see a lot of download ads.... It's not very organized, and some things look a little strange; I could see people being overwhelmed."

They rated this task a **2 out of 5**. During the post-task questionnaire, they were unable to define Evie or HOURCAR properly; they described Evie as an "electronic car kind of car share service". They couldn't entirely differentiate HOURCAR from Evie, saying, "I didn't really understand what the difference was. It seemed like ... HOURCAR was just the type of trip you take versus a different ... kind of car; almost like if you do an Uber and [you say] I want the trip saved for tomorrow versus like I do an Uber trip ... right now". They indicated that Evie would be the best service for a road trip because they saw more information about it.

**P4** also started by reading the hero section on the Evie homepage, especially noting the environmental marketing angle. They read the *Ride Easy, Drive Evie* section, immediately compared the service to Lime, and noted a lack of detail in that section, expressing interest in learning more later. Further traversing the homepage, they read the following section and the rate sheet, expressing personal interest in the Student membership and noting the Access plan.

Looking for information on HOURCAR, they said, "I guess I find myself slightly confused because I haven't seen ... the word HOURCAR until here", and highlighted the Santa Cruz start-trip disclaimer text below the rate sheet. They read the following dual-membership explainer paragraph, where they saw a link titled *HOURCAR* and clicked it. Immediately, they said "this looks like the same [website]... I'm curious if it's the same service.... I wonder if it's like an extension, maybe for EVs only".

They proceeded to the membership plan selection step. They rejected the everyday plan because it caters to frequent carshare users, mentioning they want to avoid being tied to a monthly subscription. They initially selected the backup plan, but then remembered about the Access plan and decided to click its *Learn More* before continuing. They used the graphic to verify their eligibility for the Access Plan, then decided to register for it. They indicated that they would fill out the *Self-Certification Submission* form to register as a new member.

They rated this task a **4 out of 5**, noting the amount of text they had to sift through. They were able to accurately describe Evie by comparing it to other vehicle sharing services (like Lime), but could not describe HOURCAR. They mentioned that they did not consider the HOURCAR website worth exploring since it seemed nearly identical to the Evie website at first glance. The self-certification form they ended on would not have applied for an HOURCAR membership. When asked about the function of the form, they assumed someone would reach out to ask for proof of income.

**P5** also started by reading the hero section. Their first impression was: "It seems like Evie is a carshare service, and that it's a clean energy service". They immediately clicked *Join Today*, assuming that would help them "figure out how it works". Presented with the sign-up form, they backtracked instead of clicking the *How* header link. They read the bullet points describing each service at the top of the Wiki's Quick Start Guide. They said, "I am going on an upcoming road trip, so I would assume that I need a smaller car for a short amount of time", and preliminarily identified HOURCAR as the better option for the scenario. Reading the *Join* section, they clicked *Membership Qualifications* to verify the persona we provided would be eligible. Looking

for information on how to apply, they said, “I’m seeing ... membership qualifications but not really like where to actually apply”, scanned the sidebar, and clicked the *Application Process* shortcut. It scrolled to a paragraph on the same page, seemingly causing them to backtrack by clicking the *Home* header link. They pressed the *Pricing Overview* link in the sidebar. They scrolled down to the trip price calculator, which eluded them (“Oh, what?”). They expressed confusion and uncertainty about the page, so they moved on by pressing the *Membership* button in the header. Back at the *Application and Membership* page, they recognized that they had already visited the page and clicked *Billing and Rates* in the sidebar instead. They noticed more options became available in the sidebar, which they didn’t seem to expect. They clicked *Start Trip Fee* in the sidebar, skimmed the paragraph, and considered the information irrelevant. They clicked *Which Service to Use* in the sidebar, then scrolled down and saw the same trip price calculator as before. Seeing the same content again seemed to frustrate them, prompting them to say, “It keeps taking me back here”. They gave up and ended the task.

They rated this task a **2 out of 5**, saying “that was more information than I expected to encounter”. They were able to accurately describe both Evie and HOURCAR.

## Scenario 2

**P1** began their search on the Evie Homepage as instructed and proceeded by clicking *How* in the navigation bar. They noted that in this scenario, an individual would only require a one-way trip from the grocery store back to their home; this realization pointed P1 to draw on their experiences in completing Scenario 1. After navigating to the Wiki page via the *How* button in the navigation bar in the upper left-hand side of the website, they were able to access the *Quick Start Guide* and determined that an Evie Carshare would be the better option in this scenario. P1 gave this task a rating of **5 out of 5**.

**P2** began at the Evie Homepage as instructed. They then manually scrolled down the homepage to the *Pick a Plan & Hit the Road* section. From this, they determined that “Evie would be the better option” because “HOURCAR is for traveling bigger distances.” P2 correctly determined that Evie would be the ideal service for this scenario, though they did not encounter any information that would have told them this. P2 gave this task a rating of **5 out of 5**.

**P3** began on the Evie Homepage as instructed. They quickly navigated to the Wiki, which they had discovered during the previous scenario. P3 determined that HOURCAR would be the ideal service in the given scenario, which is incorrect. P3 gave this task a **4 out of 5** and found this activity to be “pretty easy” and felt confident in their decisions.

**P4** began on the Evie Homepage as instructed. They then manually scrolled down to the *Pick a Plan & Hit the Road* section of the homepage. After scrolling to this section and comparing subscription plans, they determined that HOURCAR would be the best, or most economical option, as there is no minute rate; in their view, this makes HOURCAR best for travelling short distances. They noted that the only charge for an HOURCAR would be the \$1 start trip fee. P4 gave the task a **5 out of 5**.

**P5** began on the Evie Homepage as instructed. They then immediately, manually scrolled down to the map at the bottom of the homepage. They then scrolled back up to the top of the homepage and clicked on the *How* button in the navigation bar. They used the information in the *Quick*

*Start Guide* to determine that HOURCAR is used for round-trip journeys and Evie is for one-way trips. P5 gave the scenario a **4 out of 5**.

### Scenario 3

**P1** started by scrolling up and down the Evie homepage looking for indicators on where the information could be, then accessed the Wiki page through the *How* header link. They quickly but hesitantly clicked on the *Fuel* sidebar shortcut. They read the *Recharging an Evie* callout, thinking “I know how to start the charge”, but hesitantly backtracked when they deemed it irrelevant to third-party chargers. They continued by reading the *Fees and Credits* section, which led them to believe that charging an Evie at an EV Spot charger would cost them an additional \$4. They still couldn’t find applicable information, so they navigated to the Rules and Fees Chart using the button under the Credits section on the Quick Start Guide page. They quickly backtracked after they determined its information wasn’t applicable, then further backtracked to the Evie homepage after quickly skimming the Quick Start Guide Page. They saw the *Charging, Parking, and Insurance Included* heading on the page and clicked the *Review Rates* button under it, saying, “Oh, wait, this is just the registration, right?” They grew frustrated with the task and questioned whether the information was even on the website. They continued to skim both the Evie homepage and the Wiki, then gave up on the task without giving an answer. They rated this task a **2.5 out of 5**.

**P2** also started by scrolling up and down the Evie homepage, clicked the *How Evie Works* button in the website body, then clicked the Fuel sidebar shortcut fairly quickly. They also seemed to read the *Recharging an Evie* callout. Seemingly frustrated, they rapidly clicked through and skimmed every section of the Wiki’s *home* tab. Back on the Quick Start Guide, they navigated to the *Trip Troubleshooting* page through the roadside assistance link under the *Book* heading. They skimmed the page a few times, hesitantly saying, “It looks like you can just use—like your gas card—you can use a charge card for that outlet? But it doesn’t explicitly say yet ..., so I’m guessing you would just call roadside assistance [if you can’t get to an EV Spot Charger]”. Further hesitating, they skimmed the *EV Road Trips* page several times before finalizing their answer, saying, “If you have to get there, I would just call roadside assistance. You could probably use your charge card [for third-party chargers] ... but you want to be at the [EV Spot Charger] because it just makes things way less complicated”. They rated this task a **4 out of 5**, feeling confident in roadside assistance, but could not complete the task without contacting customer support.

**P3** immediately scrolled to the *Charging, Parking, and Insurance Included* section on the Evie homepage and read it before hesitating and skimming the page a few times. They focused on information about the EV Spot network and drive credits under the *Pick a Plan* heading and ended the task. They said “it seemed to tell me that I could (...) go up to a charger and it would be fine, but I may have misread it; it was a little confusing”. They rated this task a **1 out of 5**, feeling unconfident in their answer, and called the experience “scary”. They did not give a correct answer.

**P4** also immediately scrolled to the *Charging, Parking, and Insurance Included* section, clicked the *Review Rates* button, then backtracked when that didn’t show the information they expected. They studied the paragraph further before clicking the *EV Spot Chargers* link, which led to a Saint Paul government website. They said, “Oh, I’m not going to be able to make it to these,”

and backtracked again. They skimmed the Evie homepage before clicking the *How Evie Works* button in the body. They clicked the *Fuel* sidebar shortcut and read the Evie-branded callout, reading information about mid-trip charging and ending the task. They rated this task a **2 out of 5**, calling out the amount of backtracking they did and the misleading headings. They felt confident paying for the charge, saying the information was “explicit”. Their answer was correct.

**P5** immediately clicked the *How* link in the header, then the *Fuel* shortcut in the sidebar. They read the HOURCAR-branded callouts briefly before continuing to the Evie-branded one. They read, “if you need to charge mid-trip, you can do so with the provided cards”, but abruptly stopped reading mid-sentence when they deemed its information irrelevant (“that’s not exactly what I’m looking for”). They hesitantly skimmed the rest of the page before clicking the *charging help pages* link. They examined the three buttons, clicked the green *EV Spot* button, then said, “This doesn’t seem like it’s third-party”. They backtracked and clicked the *charge outside the Twin Cities* button. They scrolled the *EV Road Trip Tips* page for a while before backtracking again. They clicked the *Charging Troubleshooting and Tips* link in the sidebar, briefly skimmed it, and backtracked again. They hesitantly clicked the *Charging Cards Available* link in the sidebar, read information about the ChargePoint network and charge reimbursement, then correctly answered, “I would cover the cost, and Evie would reimburse me, I think”. They rated this task a **2 out of 5**, saying, “I don’t feel 100% confident in my answer”. They said they would probably call customer support for clarification.

#### Scenario 4

**P1** began on the Evie homepage as instructed. They navigated to the Wiki via the *How* button in the header, then they clicked on the *Legal Stuff* option from the sidebar. P1 determined that the insurance information is available on the app and in the glovebox. They weren’t entirely sure, saying, “This is [for] HOURCAR, but I would assume it’s the same [information] for Evie”. P1 gave this scenario a rating of **4 out of 5** and felt confident that they could repeat the process if asked.

**P2** did not start on the Evie homepage as instructed. They opened a previous tab of the *Electric Vehicle Road Trip Tips* Wiki Page. They clicked *What To Do In a Crash* in the sidebar. They read the page and explained what actions they would take in a crash. The moderator reminded them to locate the insurance card. They determined that a copy of the insurance card is in the glove box of each vehicle. P2 gave the scenario a **5 out of 5**.

**P3** began on the Evie homepage as instructed. They scrolled down the homepage looking for information and clicked the *All Member Resources* link in the footer of the homepage. From there, they clicked on the *Member Handbook*. They proceeded to scroll through the handbook PDF for about 1 minute, using their browser’s search function to look for “insurance,” which showed no identifiably relevant results. They navigated back to the Wiki via the *Informational Wiki* dropdown on the Member Resources page. Once on the Wiki, they searched for “insurance” using their browser’s search again, didn’t get any results, then navigated to the *Legal Stuff* sidebar link and located the insurance card. P3 gave this task a **3 out of 5**.

**P4** began on the Evie homepage as instructed. They scrolled down the homepage looking for information before clicking on the *Compare All Plans* button in the *Pick a Plan & Hit the Road* section. They read through the page, getting frustrated by the time they reach the *Totally*

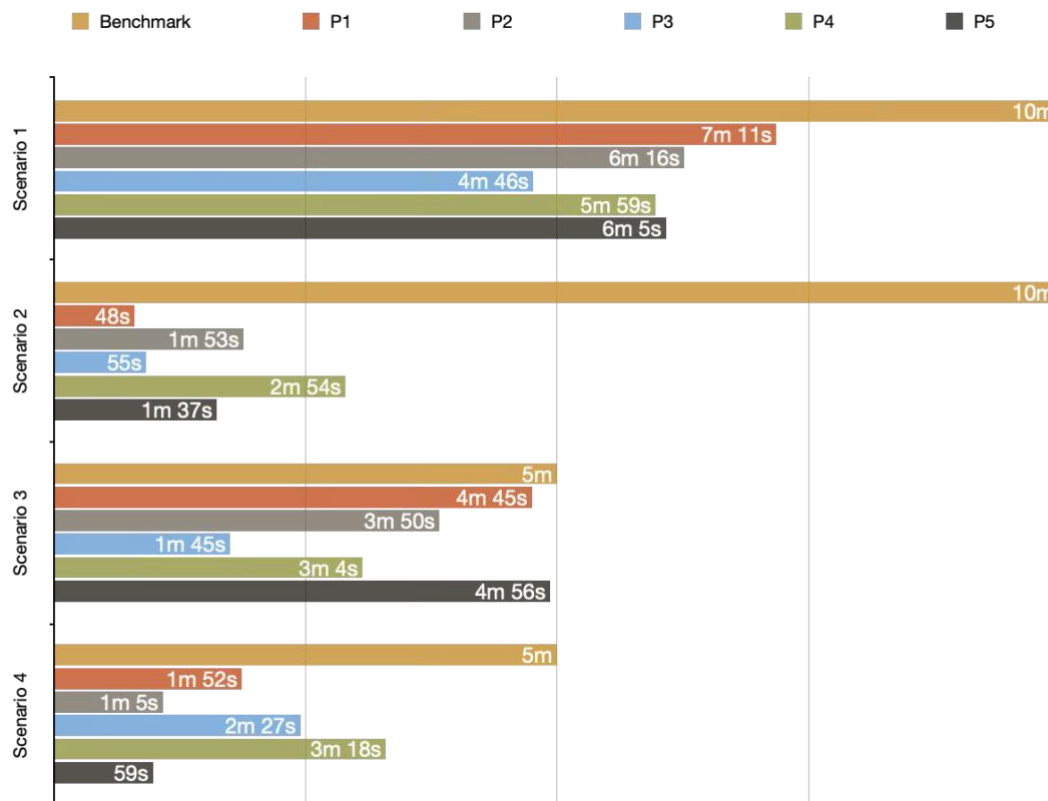
*Avoidable Fees* section. They navigate back to the homepage and click the *How Evie Works* button, which then directs them to the Wiki. Once on the Wiki, they navigate to the *Legal Stuff* section via the drop-down menu. They proceed to read through the section underneath the button labeled *Insurance Card* before finally clicking it and completing the task. P4 noted that they had to back track while navigating the site and stated, “They should make it bold for people in a hustle.” P4 also noted that the first time insurance was mentioned, referring to the *Charging, Parking, and Insurance Included* section on the homepage, they were not directed to urgent insurance information. When asked to rate this task, they responded “similar to the last one”: a **2 out of 5**.

P5 began on the Evie homepage as instructed. They then navigated to the Wiki page via the *How* button in the navigation bar. They then quickly navigated using the *Legal Stuff* sidebar shortcut of the Wiki and then clicked on the button labeled *Insurance Card*. P5 completed the task in under 1 minute. P4 gave this task a **4.5 out of 5**.

## Scenario Time Completion

### Chart 1

*Benchmarks and completion times for each scenario*



**Table 1**

*Benchmarks, completion times, and average completion times for each scenario.*

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	
Benchmark	10m	10m	5m	5m	
P1	7m 11s	48s	4m 45s	1m 52s	
P2	6m 16s	1m 53s	3m 50s	1m 5s	
P3	4m 46s	55s	1m 45s	2m 27s	
P4	5m 59s	2m 54s	3m 4s	3m 18s	
P5	6m 5s	1m 37s	4m 56s	59s	
<b>Average</b>	6m 3s	1m 37s	3m 40s	1m 56s	3m 19s
<b>Range</b>	2m 25s	2m 6s	3m 11s	2m 19s	2m 30s

**Table 2**  
*Task completion rates*

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	All Scenarios
Participant One:	70%	100%	0%	100%	68%
Participant Two:	70%	100%	0%	100%	68%
Participant Three:	30%	0%	0%	100%	33%
Participant Four:	30%	0%	100%	100%	57%
Participant Five:	30%	100%	100%	100%	83%
<b>Average</b>	46%	60%	20%	100%	56%
<b>Range</b>	40%	100%	100%	0%	60%
<b>Variance</b>	5%	30%	20%	0%	14%

*Note:* Scenario 1 was roughly split into three tasks for this comparison: define Evie and HOURCAR, pick the Access plan, and navigate to registration.

### Post-Task Rating

Table 3 indicates the participants' rating for the difficulty of each task on a scale of 1 to 5, with 1 being *very difficult* and 5 being *very easy*.

### Table 3

*Post-task ratings for each scenario and participant*

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Average
P1	3.5	5	2.5	4	3.75
P2	4.5	5	4	5	4.625
P3	2	4	1	3	2.5
P4	4	5	2	2	3.25
P5	2	4	2	4.5	3.125
<b>Average</b>	3.2	4.6	2.3	3.7	3.45

### Product Reaction Cards

After completing every scenario, we asked our participants to select five adjectives from a list of 36 words to describe their experience. For a list of all words provided, see [Appendix C](#).

**Table 4**

*Cards selected by each participant*

Participant 1	Participant 2	Participant 3	Participant 4	Participant 5
<i>informative</i>	<i>modern</i>	<i>fragmented</i>	<i>simple</i>	<i>complicated</i>
<i>useful</i>	<i>trustworthy</i>	<i>fast</i>	<i>informative</i>	<i>confusing</i>
<i>confusing</i>	<i>easy to use</i>	<i>robust</i>	<i>unpredictable</i>	<i>inconsistent</i>
<i>modern</i>	<i>technical</i>	<i>complicated</i>	<i>efficient</i>	<i>wordy</i>
<i>fragmented</i>	<i>trendy</i>	<i>wordy</i>	<i>outdated</i>	<i>professional</i>

Six words were selected by two participants: confusing, informative, modern, fragmented, wordy, and complicated.

### Debriefing Interview

When all scenarios were completed, the moderator asked a series of questions to assess the overall reaction from the participants' perspective. For more information about our debriefing interview questions, see [methods](#) and [Appendix E](#).

**P1** said Evie's strong branding and environmental marketing spin gave them a positive first impression of the Evie website. Their impression seemed to sour when they visited the Wiki: "It felt very ... cool and modern on the front page, then once you get into the other pages, it gets into all ... the technical details".

When asked about the distinction between Evie and HOURCAR, they said, "I feel like it was made pretty clear.... You pick out if [your trip] is round-trip or one way.... I like how the HOURCAR stuff is red, and the Evie stuff is green". They also mentioned that they "wish it were ... obvious where the hub location is" for HOURCAR, which may have indicated they

thought HOURCAR had one location. When asked about selecting a membership plan, they said it was easy to choose, but “the Student plan and the Access plan kind of flew over [their] head.”

The moderator asked about the discoverability and navigability of the Wiki. They said the Wiki was easy to find from the Evie homepage, but they noticed they were using a “mix of both” pages to find information. When asked about their confidence in finding information on the Wiki, they said “it depends on the task” and offered a 3 out of 5 rating.

We asked about their confidence in HOURCAR services. They said they are more likely to use them, saying they’re “really useful ... if the bus isn’t running”. If they were uncertain about something with a rental, they indicated they would feel confident finding information, but it “might take [them] a little bit of pandering around the website to figure it out.... Finding it might take a few minutes”.

When asked what they would do differently with control of the website, they said “making the different plans very obvious between what they are” and “including more information about HOURCAR on the front page”.

**P2** also said that Evie’s strong branding and color scheme gave them a positive first impression. They said this impression didn’t change as they browsed the site, but mentioned that some information was “a little bit wordy”. They said there was a clear difference between Evie and HOURCAR, although they still defined Evie as being unable to exit the home area. They said it was easy to choose a membership, but expressed interest in an alternative plan.

The moderator asked about the discoverability and navigability of the Wiki. They also said the Wiki was easy to find, but mentioned that it “took [them] a while to scroll through” and that they were “reading a lot of information, trying to digest what each [service] was about”. They said they were confident they could find information on it.

We asked about their confidence in HOURCAR services. They said they are more likely to use them. If they were uncertain about something with a rental and needed information, they said they felt confident in customer support, but seemed uncertain about finding information themselves.

When asked what they would do differently with control of the website, they said they would add a way back to the HOURCAR and Evie homepage through the Wiki header “by clicking on one [icon] or the other”.

**P3** said that the Evie homepage immediately drew their interest and gave them a strong first impression. As they used it, that impression changed: they “kind of faded in and out of understanding what [they were]... theoretically paying money for”. They hinted that the distinction between Evie and HOURCAR was unclear, but once we had them apply their conceptualization of both services, they felt there was less pressure. They expressed some confusion over the membership plans, but would feel more secure if they better understood their needs in a real-world scenario.

The moderator asked about the discoverability and navigability of the Wiki. They said, “I wish I found the Wiki earlier... If I needed something like an insurance card, I would assume it would be buried deep within [it]”. They said the wiki was understandable, but they aren’t entirely confident in finding information on it.

We asked about their confidence in HOURCAR services. When asked if they would be more or less likely to use them, they said they couldn’t gauge because it was such a new concept to them. They felt confident finding information on the website.

When asked what they would do differently with control of the website, they cited the stark styling changes between sites, saying that, on the registration step, “the site changes— it looks different and ... suspicious, especially since you’re about to type in payment information. It doesn’t look like the official HOURCAR or any kind of site you were on before”.

**P4**’s debriefing interview was cut short due to time constraints. When asked about their first impression of the site, they said, “It seemed, I don’t know, not underwhelming and not completely outdated... but also kind of weird”, citing inconsistencies and visual uneasiness throughout the site. Specifically, they mentioned the floating, uncentered buttons in the hero section and inconsistent border radii: “small things that... [contributed to it feeling] like something out of a... pretty good project in an [undergrad] UX class”, like the ones they had taken in the past.

They said the distinction between Evie and HOURCAR was clear, saying that “one of the best features of this website is when you’re comparing the [rates] between the two” head-to-head. However, they highlighted that the similarities between the Evie and HOURCAR websites prompted them to disregard HOURCAR as being essentially the same service, and the disconnect between each site made comparing each service difficult.

They said that the Wiki was easy to find, but “not at first”. They raised concern over what people would see first: they asserted that the header draws interest but leaves out “in-depth details”, which are only on the wiki, which doesn’t “reveal itself”. They said that the wiki is simply laid out and not overdesigned, but “the sections are a little crammed together”. They liked the colored “info bubbles that aren’t just blocks of text”. The session time block ended, so we did not reach every interview question.

**P5** said that the Evie homepage gave them a “professional” but “tacky” first impression. They said the “front photo has a strange perspective” and the service felt “inaccessible”, “commercial”, and “sterile”. Their impression improved somewhat as they navigated the site.

They said the distinction between Evie and HOURCAR was clear, but only if they “spent more time reading through it”. They mentioned the name *HOURCAR* threw them off as being the better service for shorter-term trips, forcing them to correct and think, “Oh no, that’s the round trip one”. They could not find a membership plan, so it was not easy to choose one.

They said that, while the wiki was “easy to find,” it was “not so easy to use”: they felt that “the small text was jarring” and consistently laid out “in a way that didn’t feel helpful”. Like other participants, they pointed out the “similarly worded headings” that had them “repeating the same steps over and over again”. They said that they were “uncomfortable” finding information on the Wiki.

Despite this, they said that they are more inclined to use HOURCAR services. We asked if they would feel comfortable finding information on an HOURCAR rental, and they said, “absolutely not; I would call them”.

When asked what they would do differently with control of the website, they mentioned small changes, like more legible fonts and a less intrusive hero image.

## Discussion

The results of our test provide us with data and evidence that help answer our research question: *How do the users of HOURCAR's websites research, conceptualize, and differentiate between the services?* Our participants' understanding of each service somewhat exceeded our expectations, but proves there's still improvement to be made. While researching specific information about each service, our participants struggled to navigate the website. In this section, we'll dissect the usability test results and form takeaways.

### Scenarios

#### Scenario 1

Scenario 1 asked participants to research HOURCAR services, the best membership option with the given demographic information, and determine where to register. **Three out of five** participants could not give a satisfactory definition of both services. One other participant, **P1**, was unsure about HOURCAR but correctly guessed an answer. Every participant started by fully reading the hero section at the top of the Evie homepage. For three participants, the key takeaway was the environmental marketing angle, and **P5** initially interpreted Evie as a "clean energy service". We found that the bullets at the top of the Wiki homepage were the most helpful to our participants. They directly compared both services, which helped our participants form a basic, although often flawed, understanding. Our participants primarily used the *one-way* and *round-trip* terms to form an understanding; this language was removed from the Wiki after our test session.

#### Figure 2

##### *Comparison bullets at the top of the Wiki homepage*

- **H HOURCAR** is a hub-based system, so trips are **round-trip**. They start and end at the same hub location, and you schedule how long you'll need the car. It'll always be reliably in your neighborhood and you can plan in advance for your important appointments or long weekend trips.
- **E Evie Carshare** is a free-float system, so trips are **one-way**. They can start and end anywhere within our Home Area, and are first come first served. It's a flexible way to take trips from one destination to another, such as commuting to work or going to an event.

**P4** did not visit the Wiki during this scenario, visiting the HOURCAR website instead to form an understanding. As they noted, its similarity with the Evie website caused them to write it off as a rebranding of the same service, so they deemed it not worth exploring.

Our scenario posed the Access plan as the most cost-effective plan, although it left room for unintended interpretation:

You are researching car rentals for an upcoming road trip and find the Evie homepage. You decide to use a carshare service. You are a 26-year-old factory worker who made \$42,000 last year, and you have no children.

Three participants, **P2**, **P3**, and **P4**, interpreted that the persona we provided in this scenario wouldn't use carshare services often. This pushed them (except **P4**) to select the Backup plan.

However, **P2**, **P3**, and **P5** never recognized the Access plan as an option or investigated it. **P4** nearly selected the Backup plan before suddenly deciding to investigate the Access plan requirements. **P5** only saw [pricing information on the Wiki](#), where the tabbed structure seemed to elude them, and failed to communicate the existence of distinct memberships. **P1** was the only participant who visited the plan comparison page, where they immediately identified the Access plan. This may indicate that the plan comparison page has the best layout.

One participant, **P4**, indicated that the *Self-Certification Submission* form would register for a new Access plan account, believing that additional income verification would be required. Since this form is intended for existing members, they did not complete this task; additional customer support would be required in this situation.

## Scenario 2

Scenario 2 pushed participants to apply their definition of HOURCAR services by choosing the most appropriate service for a real-world scenario. Participants were given a second chance to research HOURCAR services before continuing. A free-floating/one-way trip made the most sense in our scenario, so Evie was the correct answer. **P1** and **P2** used their definitions from the previous scenario and gave an immediate answer. **P5** referenced the top of the *Quick Start Guide* before giving a correct answer; they seemed to properly identify Evie’s “one-way” terminology. **P3** immediately went to the Wiki to answer this question, but incorrectly answered HOURCAR. They seemed to properly conceptualize the HOURCAR service, but didn’t recognize Evie as a better option. **P4** went to the *compare plans* page, noticed the lower rates for HOURCAR, and selected HOURCAR. They believed the lack of a minute rate meant that HOURCAR trips under an hour would only be charged the start-trip fee. They did not read any other information distinguishing Evie from HOURCAR in either scenario, so they chose the service they perceived to have lower rates.

We asked participants to define Evie and HOURCAR in Scenario 1, but they often read back headings shown on the website without fully conceptualizing the services. Scenario 2 acted as a knowledge check, asking them to pick a service and explain why they chose it. Participants who had a working, if flawed, definition from Scenario 1 were able to properly identify Evie as the better option. Participants who could not distinguish between Evie and HOURCAR in Scenario 1 seemed to translate their flawed conceptualization to this task with undue confidence. This highlights the importance of clearly explaining each service and how they relate to each other early in a user’s experience.

## Scenario 3

Scenario 3 sought to test how users would navigate the wiki while looking for specific, non-salient information. All participants except **P3** often opened a page and backtracked when it didn’t have the information they were looking for. Link text and headings often seemed related to the task. Here are a few elements that our participants found misleading:

- *Charging, Parking, and Insurance Included*: This is a prominent heading on the Evie homepage that captured the attention of **P1**, **P3**, and **P4**. Two participants, **P1** and **P4**, clicked the prominent *Review Rates* button below this heading, which forced them to backtrack and ultimately drove **P1** to give up. The word *charging* in such a prominent

heading and a button seems to suggest that visitors can click the button to learn more about charging.

- *EV Road Trips*: This page has incredibly dense information. Most of it is broadly applicable to EVs, not just HOURCAR vehicles. Both **P2** and **P5** visited this page, which seemed to daze them, causing **P2** to give up and **P5** to backtrack. **P2** aimlessly clicked into the page through the sidebar as a last-ditch effort before giving up, and **P5** accessed it through a button titled *Charging Outside the Twin Cities*. In both cases, this page didn't match their expectations. This page included the requested information in a callout at the bottom of the page, but these participants stopped reading before noticing it.
- *Recharging an Evie*: This callout on the Quick Start Guide contains the requested information. Four out of five participants read this callout, but only one participant, who read the callout, **P4**, completely read it and arrived at an answer. The other participants partially read it, but stopped reading when they deemed it irrelevant. Both **P1** and **P5** read information about ending at an EV Spot Charger and charging with official charge cards before deeming the callout irrelevant and moving on.

These show the importance of an element's meaning matching a visitor's expectations. In this scenario, highly prominent text threw off our participants while the information they were searching for was buried in otherwise irrelevant paragraphs that our participants ignored. This also means using standard elements in a predictable way; the prominent buttons used throughout this task seemed to indicate they performed actions directly related to the surrounding page content, but they violated our participants' expectations.

#### Scenario 4

Scenario 4 tested how participants navigated the wiki for more salient information, but with a time limit imposed. Participants were asked to retrieve insurance information within a minute. Three out of five participants (**P1**, **P2**, **P5**) navigated directly to the Wiki using the *How* header link, showing increasing recognition of the Wiki as a resource. All participants found the insurance information through the Wiki using its sidebar. **P1**, **P3**, **P4**, and **P5** ultimately found insurance information through the *Legal Stuff* sidebar shortcut on the Wiki homepage, while **P2** used the *Trips* header link, then used the *What To Do in a Crash* sidebar shortcut.

**P3** navigated through the *Member Resources* page linked in the footer to the *Member Handbook*, where they didn't identify any relevant information. These pages seem like they've been almost entirely replaced by the Wiki; most links direct to the Wiki or the Vulog account center. In this case, the page added another step that needed to be backtracked from.

#### Global Takeaways

We noticed that our participants used two major navigational shortcuts while searching for information on the wiki:

- All participants made heavy use of the sidebar for navigation. On mobile devices, the sidebar shortcuts are hidden in a navigation drawer, which is unconventionally split by the Wiki's high-level sections. Additional testing may be needed to ensure usability for mobile users.

- One participant, **P3**, used their browser's built-in search function several times on Scenario 4 by using a default keyboard shortcut, which only searched the current page. Since this function is typically less convenient to use on mobile browsers, user behavior may differ on mobile devices.

Importantly, all of our participants used devices with a wide viewport, a cursor, and a keyboard. Although we weren't provided this information, we expect that a majority of HOURCAR users access the websites on a mobile device. Considering that these features have significant functional differences on desktop and mobile, we recommend further testing that includes mobile devices.

HOURCAR requested that we investigate improvements to the search function. None of our participants used the Wiki's search function at any point, indicating they didn't recognize it as a resource. Our participants primarily used page links and the sidebar to find information. This may suggest that users don't notice the search function, don't consider it useful, or prefer manually searching and recognizing the information they need.

### Scenario Time Completion



Data referenced in the following sections is available under [Results](#).

We offered benchmark completion times for each task as broad estimates for time completion. We took a somewhat pessimistic approach to setting benchmarks, so our participants outperformed our benchmarks in all scenarios. However, these completion times mirror the considerable amount of backtracking and struggle our participants went through to perform tasks, except for scenario 2, which acted as a knowledge check.

Scenario 1 (researching HOURCAR services, identifying a membership plan, and determining where to register) took an average of over 6 minutes to complete, despite the low 46% average task completion rate. This scenario was modeled to match an unfamiliar visitor's experience. Performance on this task demonstrates that improvements should be made to aid the conceptualization and sign-up flow of HOURCAR services.

Scenario 2 acted as a knowledge check, asking participants to apply their conceptualization of HOURCAR services to a real-world scenario, researching more as needed. Only 3 in 5 participants arrived at a correct answer: **P3 and P4**. They gave the most broken or incomplete definitions of HOURCAR services in Scenario 1. **P3** felt more confident in their conceptualization after researching, taking 55 seconds to arrive at an incorrect answer. **P4** felt less confident, taking the longest time to compare rates between services: just under 3 minutes. This also gave them undue confidence in their answer.

Scenario 3 was the most challenging of the four, despite asking participants to complete one main task. Only 2 in 5 participants arrived at a correct answer, and only one participant felt confident in their answer. Two other participants gave up on finding the requested information.

Participants took an average of 3 minutes and 40 seconds on this task. We found no correlation between the amount of time they took on this task and their ability to arrive at a correct answer.

Scenario 4 asked participants to find insurance information in under one minute. Only one participant achieved this target (**P5**) while **P2** narrowly missed the window. **P3** got stuck on the member resources page and had to do a considerable amount of backtracking, leading to a completion time of 3 minutes and 18 seconds.

### Post-Task Rating

We asked participants to rate the ease of each task on a scale of 1 to 5, **1 being very difficult** and **5 being very easy**.

Scenario 2 was rated the easiest task, averaging a rating of **4.6**. However, as mentioned earlier, only three participants arrived at a correct answer. The other two participants still rated the task highly, indicating they arrived at an incorrect answer confidently. Scenario 1 also heavily led into scenario 2, so our participants may have inadvertently rated how easy it was to apply their pre-existing knowledge of each service, not how easy it was to find information on each service.

Scenario 3 was rated the most difficult scenario, averaging a rating of **2.3**, reflecting the amount of struggle they experienced and the inability to identify an answer. Excluding outliers, this average is **1.9**.



One participant, **P2**, gave scenario 3 a high rating of 4 despite entirely giving up on finding an answer. Of all participants, they gave the highest average post-task ratings, selected entirely positive product reaction cards, and gave positive feedback during the post-task and debriefing interviews.

We used a single script for all participants, which explained that we are not the site creators. Despite this, they repeatedly referred to us as the site creators, for example, saying, “I think you guys did a really good job on this website”.

We believe they were avoiding negative feedback to please us, despite struggling to use the website. Therefore, we think this participant’s primary feedback shouldn’t be taken entirely at face value.

### Product Reaction Cards

After completing every scenario, we asked our participants to select five adjectives from a list of 36 words to describe their experience. For a list of all words provided, see [Appendix C](#). Six words were selected by multiple participants: confusing, informative, modern, fragmented, wordy, and complicated.

Two-thirds of the top-selected words were negative, showing our participants felt confused by the site’s content structure.

However, of all selected words, 59% were positive; these seemed to focus on the availability of information and the site's reliability as a resource. Even if we ignore P2's overwhelmingly positive selections, 41% of the remaining selections were positive, roughly matching the proportion of positive words overall.

### Conclusion

We invited five people to participate in a usability test of the Evie website and the HOURCAR wiki. Our study aimed to address several questions posed by the HOURCAR team, so to summarize, we'd like to address them one by one:

*What's the first impression for new visitors?*

Our participants were all unfamiliar with HOURCAR services, so this was very likely the first time they had visited these websites. Unsurprisingly, every participant started by reading the hero section at the top of the Evie homepage. Three participants especially noted Evie's environmental marketing spin, and one participant initially perceived Evie as a clean energy service. Everyone seemed intrigued but unsure about Evie's actual function.

When asked about their first impressions, some participants praised its branding as "cool", "modern", and "professional". Other participants panned the style, calling it "tacky", "commercial", "sterile", "weird", and somewhat "outdated". They critiqued the cover image, the inconsistent layout, and the confusing hero text.

*Could they understand the difference between our services clearly, and be able to pick the better one according to their needs?*

Broadly, no. Three participants could not satisfactorily define both Evie and HOURCAR after being specifically asked to research both in our first scenario. Of the two that could define both, one was extremely hesitant to answer. Some participants especially noted the disconnect between the Evie and HOURCAR websites, which made them significantly less sure about the HOURCAR service. Our participants had to specifically search for references to HOURCAR; its existence was not well communicated, much less its actual function. We're optimistic about the merging of the Evie and HOURCAR homepage.

Scenario 1 was meant to strike a balance between modeling a realistic situation and actually our participants' comprehension of the website. It specifically pushed them to research the HOURCAR service, but when real users are exploring HOURCAR's websites, they will almost certainly not have that goal in mind.

Scenario 2 further pushed our participants to pick the ideal service for a given scenario. While Evie was the better option, two participants selected HOURCAR. One perceived HOURCAR as a gas-powered Evie equivalent and selected it because of its lower rates, while the other didn't seem to recognize Evie as one-way.

*How's the newly integrated Wiki page working for users— is it as helpful and accessible as it could be?*

It's a big step in the right direction, but it still needs improvement. Right now, it acts as a sort of gatekeeper for basic information, and four participants used the very basic definitions it provides on the homepage and quick start guide to get a basic understanding

of each service. This means that they're identifying it as a resource early on, but only because it's one of the only sources of information on both services.

Scenarios 3 and 4 were built to test the wiki's navigability by asking participants to find more specific information. Scenario 3's requested information was slightly less salient, while Scenario 4 pushed participants to act quickly. Scenario 3 had several participants clicking on seemingly relevant links that led them nowhere, forcing them to backtrack and frustrating them. Two participants essentially gave up, one read an irrelevant heading and gave an incorrect answer, and another one gave a correct answer but wasn't confident. Scenario 4 was easier, but only one participant met the time limit we set for them. Two participants didn't immediately check the wiki, which led them down a frustrating rabbit hole.

*Are there improvements that could be made with the search function?*

None of our participants used the search function. Instead, they used the Wiki's sidebar, header, and article links to navigate. We recommend focusing on improving the navigability of the site before improving the search function. We'll expand on this in our [fifth recommendation](#).

*What could existing members use the site for? How can we make the website more appealing for our active users to browse on?*

We modeled Scenarios 3 and 4 to answer this question. Both scenarios show that it is not particularly easy to find information that existing members may be looking for. Our participants worked on desktop computers in a controlled environment, so this is likely even worse for members who may be looking for rental information mid-trip. We think the Wiki is an important resource for existing members, while core information should be available on the homepage. Our [recommendations](#), if implemented, would turn the Wiki into more of a support resource for existing members.

## Recommendations

Our recommendations are based on the significance of our findings, what they imply, and what users wish had been incorporated to help them. In order to achieve the HOURCAR team's goal of eliminating confusion about the different services offered by HOURCAR and ensuring that the suite of sites is “pleasing and easy to use for any first-time visitor,” we offer the following recommendations:

### **Recommendation 1: Implement clear and deliberate phrasing, along with intentional organization.**

One of the major considerations we were asked to incorporate into our research was the impression that new users get from the HOURCAR suite of websites. It is a priority that first-time users can navigate the site and determine the difference between HOURCAR's available services, along with being “appealing for active users to browse on.” For first-time users, the main concern is ensuring that they are able to distinguish between existing services and memberships. While adding imagery or tables that explain the differences (See Recommendation 2), establishing easily interpretable terms across all existing sites is essential for ensuring that first-time users are able to establish an understanding of existing services quickly.

The current version of the sites uses inconsistent language and terminology across the suite. The most pressing being the interchangeable use of ‘free-floating/one-way’ and ‘hub-based/round trip.’ The majority of participants distinguished the difference between HOURCAR services via the bullet points on the Wiki homepage, which uses ‘one-way’ and ‘round-trip’ to describe each service. As this is the most common method our participants used to distinguish between the two services, we recommend remaining consistent with these terms across the suite of sites as descriptions of each service and basing future service descriptions on these models. Integrating terms such as ‘free-floating’ and ‘hub-based’ adds confusion and alters users' mental models of services.

We noticed the removal of the *one-way* and *round-trip* terminology, which several participants directly used in their explanations of each service. This leaves only the terms *free-float* and *hub-based*. These terms were already present during our testing, but nobody seemed to find the term *free-float* useful. One participant even seemed to be misled by the *hub-based* term, perceiving HOURCAR as having a single central hub.

Ensuring consistency across a website, or in this case group of websites is essential to the site's usability. UX/UI expert Jakob Nielsen's fourth usability heuristic details *consistency and standards*. Nielsen highlights the importance of “consistent terminology and elements across all pages,” to ensure user understanding (Krause, 2021). Using multiple terms in place of using one term consistently “prevents users from having to learn something new to use the design, reducing their cognitive load and improving usability” (Warje, 2024). Reducing the users cognitive load by using consistent terminology across all HOURCAR sites will not only decrease confusion but also improve user experience overall.

## **Recommendation 2: Add a graphic table that clearly differentiates services on the homepage.**

According to a survey conducted by PARC, the most important actions people take on the internet are broadly collecting information (not specifically seeking it out), comparing it, and using it to make a decision (Nielsen, 2001). This is especially true for HOURCAR's new or prospective members, who may be exploring mobility services and deciding which one to use-- whether that's from HOURCAR or a competitor.

The current website accommodates this rather poorly; only 2 out of 5 participants were able to provide a sufficient, error-free definition of both Evie and HOURCAR when specifically asked to research both, and one of them hesitantly *guessed* a correct answer. As several participants pointed out, there is very little information about HOURCAR on the Evie homepage, and very little that defines or distinguishes either service anywhere but the Wiki. We found that the most useful element for our participants was the bullet points on top of the Wiki homepage, which made a direct comparison between Evie and HOURCAR.

The distinction between Evie and HOURCAR is already pretty weak. During our testing, we specifically asked participants to define *both* Evie and HOURCAR. Only one participant visited the HOURCAR homepage during the entire test, and they quickly wrote off HOURCAR as a gas-powered but otherwise identical service to Evie. We believe the introduction of *Evie Loop* will make defining the three services even harder. When this rebranding is introduced, it will be especially important to distinguish and compare each service clearly, early on, and prominently. We think the announced consolidation of service homepages *could* help, but this needs to be executed well to work.

We think comparing and distinguishing between Evie, HOURCAR, and other mobility services is a core part of HOURCAR customers' experience, so the website should accommodate that first and foremost. Several factors guide which service makes more sense to use; where a trip ends, the reliability of a car being nearby, parking costs, and fuel type all guide a user's service selection-- not just whether it's *free-float* or *hub-based*. This type of multi-faceted decision-making process is called *compensatory* and is typically best served by a comparison table (Moran & Dykes, 2024).

We also recommend directly comparing related services like local bike/scooter-share companies and traditional car rentals like Enterprise in this table. This would help visitors who are familiar with these related services conceptualize Evie and HOURCAR as well as highlight their advantages. This draws on users' existing *conceptual models* of other services (Norman, 2013, ch.1). Most people already have an understanding of Lime and traditional car rentals-- use that to quickly build an understanding of each service.

In our test, some participants made direct comparisons to Lime and Uber, but their definitions inherited inaccuracies as a result. **P2** thought Evie rentals are unable to leave their home area like Lime. **P3** thought both services used the same vehicles, but *HOURCAR* and *Evie* referred to whether the vehicle is reserved or not, like how Ubers can be reserved. Prominently contrasting Evie and HOURCAR with similar services would guide visitors away from making these flawed conceptualizations.

### **Recommendation 3: Be upfront and consistent about where links lead before users click on them**

Web usability expert Jakob Nielsen offers ten heuristics for developing excellent user interfaces, one of which is *Consistency and Standards*. Nielsen argues that, “Users should not have to wonder whether different words, situations, or actions mean the same thing” (Krause, 2021).

We used this heuristic earlier this year in the [heuristic evaluation](#) we offered to HOURCAR. We identified one problem for this heuristic, inconsistent link behavior on the Evie homepage, but we didn’t expect it to be a major issue. However, during this usability test, we found that inconsistent link behavior was especially frustrating to our participants, often to the point of quitting a task. We believe that the HOURCAR websites would be improved by further adherence to this heuristic.

We found that the inconsistency of many of the hyperlinks on the Evie website clashed with our participants’ expectations of them. There are two main styles of hyperlinks used: header navigation buttons and green buttons in the page’s paragraphs.

Many homepage links look the same yet perform different actions. Of the three top navigation buttons, two scroll to sections of the homepage, while one links to the Wiki homepage. Several participants expressed confusion and frustration over this. Specifically, P3 frustratedly clicked each button before saying, “Oh, this is all just one page then”. When they finally clicked the *How* button, its behavior surprised them.

The same buttons under the body’s paragraph sections have the same inconsistency: *How Evie Works* directs to the Wiki while *Review Rates* scrolls down. Highly prominent buttons, like the ones used within these sections, typically suggest to users that they will perform a highly applicable action or link them somewhere directly related to the preceding section. The *Review Rates* button does neither, which violated the expectations of two participants and even frustrated one to the point of quitting the task.

We believe that consistently communicating a link’s destination and behavior will eliminate an unexpectedly large point of frustration for users. Inconsistency was an attribute that was mentioned multiple times during the course of our usability testing, and our participants made several comments specifically about these links. Therefore, we recommend implementing a system to visually differentiate links based on where they send the user. Make sure that link styling and behavior conform to expectations set by other websites. Use color, visual hierarchy, positioning, and text content to subtly communicate where links lead *before* people click on them.

### **Recommendation 4: Create a prominently featured categorical index of Wiki content.**

The Wiki replaced two divided FAQ pages as a central source of information for all users. Overall, we think this was a big step in the right direction; it consolidated information about both services, allowed for more in-depth information, and paved the way for advanced features like search. However, it stripped away an essential feature from the previous FAQ pages: grouped topics that users can easily browse and recognize. Instead, the Wiki’s navigation structure leans hard into inline links and a somewhat broken search function. Based on our test results, we believe this feature would be worth reimplementing.

Currently, the Wiki's information architecture is split between four categories, accessible from the top navigation bar, and pages contained within them, which are accessible from shortcuts in the sidebar. In our tests, every participant made heavy use of the sidebar to navigate throughout the pages. They scanned the sidebar's shortcuts for anything that was relevant to our scenario. While the sidebar provides an outline of every page within the current page's category, it's far from comprehensive or useful. It requires a combination of selecting between intersecting categories, selecting a specific article from the sidebar, and identifying specific information buried within the text-heavy page. We predicted this would be a major issue in our [heuristic evaluation](#) with HOURCAR.

In a 1994 article, Jakob Nielsen wrote, "Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility" (Nielsen 1994). We believe that this is the fundamental problem with the current layout of the wiki. A large portion of time during our usability testing was spent with participants searching around the wiki for information. All pages on the current wiki are filled with large blocks of text. Our participants used the sidebar and links scattered throughout the articles to navigate, which led them to circle the Wiki and become frustrated. The disconnect between the broad categories prevented the sidebar from displaying pages that were relevant to them.

Our recommendation is to reorganize the Wiki into a single index, with all topics and relevant articles grouped together for recognizability. When our participants were searching for information on the wiki, they spent a significant amount of time clicking from tab to tab without actually entering any of the tabs. They were presumably doing this in order to find a tab that appears to have the information they were looking for. Specifically, in scenario 4, three of our five participants went immediately to the wiki. With P3, the participant spent time looking around the wiki for the word *insurance*. When unable to find it, they continued to click back and forth between the Wiki, Evie's homepage, and the document containing the scenario. With something like an index, the information could have been found much more quickly, simply by searching within the related category.

**Recommendation 5: Make the search function more useful, prominent, and universally available.**

One of the guiding research questions HOURCAR posed to us was, "Are there any improvements that could be made with the [Wiki's] search function?" Our tasks were built to test how our participants naturally searched the Wiki without directly asking them to use the search function. In our tests, none of our participants used the search function once or even seemed to notice it. This could mean several things: the search bar wasn't where our participants would expect it to be, they didn't believe it would be useful, or other content served their needs or otherwise grabbed their attention. One participant used their browser's built-in search function, but not the one built into the wiki. This isn't entirely surprising. Our participants were completely new to the concept of carshare, much less HOURCAR services. They may not have known exactly what to look for, expected poor results, or didn't want to put in the higher amount of effort required to make a search (Budi, 2014).

Despite this, we think search is a good fit for the HOURCAR websites because of the complexity of the information on them. For one, search acts as an "escape hatch for when [users] are stuck" (Nielsen 2001b). It can also be a go-to for visitors who either know what they're looking for or

want greater control over their experience on the website (Nielsen 2001b) (Budiu 2014). For all these use cases, it makes sense to **prominently put the search function on every page**, even the homepage. For experienced visitors who use search as a shortcut, this could cut down on the number of interactions they need to make. For everyone else, you cannot completely predict where they will get stuck, so it acts as a lifeline for them when traversing links is going nowhere (Nielsen 2001b).

However, search is a slippery slope; it can be a useful tool, but it's all too often seen as a silver bullet used to justify deprioritizing navigability. Search alone will not fix a website's confusing structure because it requires users to recall or forage for keywords, often returns irrelevant results, is mentally taxing to interact with, and often requires search skills to use instead of natural language (Rosenfeld & Morville, 1998, sec 6.1.2) (Budiu, 2014). **We recommend focusing on improving navigability first, then improving search as a secondary feature.** Search is a very difficult feature to implement in a useful way, and it's easy to neglect other aspects of the website in the process. Our other recommendations focus on the navigability and delivery of information; they are easier to implement and, as echoed in our testing, stand to benefit more users (Budiu, 2014).

With that being said, there are ways to somewhat design around the limitations of search. Instead of the small, wordy search result modal that the current search function shows, you could implement semantic search suggestions and autocomplete. This would reduce the amount of effort it would take to perform a search because it requires less typing, relies less on the user's memory of key terms, and allows them to recognize which searches may be the most helpful (Moran, 2018). Move the results to a separate search landing page to give more space to results and better align with visitors' expectations. Next, you could tag and index pages with semantically related keywords (Rosenfeld & Morville, 1998, sec 5.3.2). For example, the [What To Do in a Crash](#) page could have the keywords "damage", "accident", and "collision" to name a few-- none of these searches currently return this page. Additionally, search results should be sorted by relevance, not just the number of times a search term appears in a page. For instance, when searching for "charge", the *How to Charge* page should appear above *Electric Vehicle Road Trip Tips*. Finally, the search function should detect and recover from typos automatically and suggest alternative searches if no results can be found.

## References

- Budiu, R. (2014, September 7). *Search is not enough: Synergy between navigation and search*. Nielsen Norman Group. <https://www.nngroup.com/articles/search-not-enough/>
- Krause, R. (2021, January 10). *Maintain consistency and adhere to standards*. Nielsen Norman Group. <https://www.nngroup.com/articles/consistency-and-standards/>
- Moran, K. (2018, May 20). *Site search suggestions*. Nielsen Norman Group. <https://www.nngroup.com/articles/site-search-suggestions/>
- Moran, K., & Dykes, T. (2024, February 9). *Comparison tables for products, services, and features*. Nielsen Norman Group. <https://www.nngroup.com/articles/comparison-tables/>
- Nielsen, J. (1994, April 24). *10 heuristics for user interface design*. Nielsen Norman Group. <https://www.nngroup.com/articles/ten-usability-heuristics/>
- Nielsen, J. (2001a, April 14). *The 3Cs of critical web use: Collect, compare, choose*. Nielsen Norman Group. <https://www.nngroup.com/articles/the-3cs-of-critical-web-use-collect-compare-choose/>
- Nielsen, J. (2001b, May 12). *Search: Visible and Simple*. Nielsen Norman Group. <https://www.nngroup.com/articles/search-visible-and-simple/>
- Norman, D. (2013). *The design of everyday things: Revised and expanded edition*. Basic Books. <https://dl.icdst.org/pdfs/files4/4bb8d08a9b309df7d86e62ec4056ceef.pdf>
- Rosenfeld, L., & Morville, P. (1998). *Information architecture for the world wide web* (1st ed.). O'Reilly Media.
- Warje K. (2024). Nielsen's Heuristics. The Decision Lab. Retrieved December 2, 2025, from <https://thedecisionlab.com/reference-guide/design/nielsens-heuristics>

## Appendices

### Appendix A: Background Questionnaire & Responses

Thank you for helping us evaluate our client's website. Before we begin, please tell us a little about yourself.

\*Indicates required question

**What's your name?\***

---

**What's your email address?\***

---

**How many times a week do you commute, run errands, or take other trips?\***

- 1–2 times per week
- 3–4 times per week
- 5–6 times per week
- More than 7 times per week

**What is your most used method of transportation?\***

- Personal car
- Carpooling
- Rental car
- Public transit
- Personal bike/scooter
- Rental bike/scooter
- Walking
- Other: \_\_\_\_\_

**Do you own a smartphone?\***

- Yes
- No

**Have you used a car share service before?\***

*Car share services include rental services without a brick-and-mortar location or fixed return windows. If you're unsure, select "I don't know".*

- Yes
- No
- I don't know

**Table 5**  
*Background Questionnaire Responses*

Questions	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5
How many times a week do you commute...	1-2	Did not answer	1-2	1-2	7+
Most used method of transportation	Walking	Did not answer	Transit	Personal Bike/Scooter	Carpool
Owns smartphone	TRUE	Did not answer	TRUE	TRUE	TRUE
Has used carshare	FALSE	Did not answer	TRUE	FALSE	FALSE
How many times carshare service used in past year		Did not answer	7+		
Carshare company name		Did not answer	Uber		

*Note:* Uber is primarily a ride hailing service, not a carshare service. Up until recently, they offered carshare in Australia, but not in the US. Therefore, our report indicates that no participants have used carshare in the past.



## **Appendix B: Post-Task Questionnaire**

### **Main Page(s)**

1. What was your first impression of the site?
2. Did your impression change while you were using the site?
3. Was it made clear what Evie and HOURCAR are?
4. Could you easily tell how Evie and HOURCAR were related?
5. Was it clear what the difference between the services was?
6. How easy was it to choose a plan?

### **Wiki Page**

1. Was the wiki page easy to find?
2. Once you were on the Wiki, could you find the information you were looking for?
3. Is the wiki page easily understandable?
4. How confident are you in finding information on the HOURCAR Wiki?

### **Overall**

1. After this experience, are you more or less inclined to use HOURCAR services for short-term car rentals? Why or why not?
2. If you rented a car from HOURCAR and were unsure about something, would you feel confident finding what you need?
3. If you could magically change anything about the websites you evaluated tonight, what would you change?

## Appendix C: Product Reaction Cards

### Product Reaction Cards for HOURCAR

Please choose and **select five words that best describe the website** you visited today, based on your experience using it.

Entertaining	Reliable	Unpredictable	Slow
Trendy	Easy to Use	Insufficient	Straightforward
Cumbersome	Efficient	Rigid	Fragmented
Simple	Familiar	Jargon-Filled	Simplistic
Complicated	Fast	Stupid	Technical
Confusing	Frustrating	Modern	Trustworthy
Sensory Overload	Hard to Use	Outdated	Unhelpful
Discouraging	Inconsistent	Overwhelming	Useful
Distracting	Informative	Robust	Wordy

Partially developed by and © 2002 Microsoft Corporation. All rights reserved.

## Appendix D: Scenarios

### Scenario 1

You are researching car rentals for an upcoming road trip and find the Evie homepage. You decide to use a carshare service. You are a 26-year-old factory worker who made \$42,000 last year, and you have no children.

#### Tasks, Scenario 1

1. Begin at the [Evie Home Page](#).
2. Determine what Evie is and how it works.
3. Determine what HOURCAR is and how it works.
4. Find the best membership plan for this scenario.
5. Navigate to the registration page for the chosen service.
6. Say “I’m done” when you’re done. Do not fill out any forms.

#### Post-Task Questions, Scenario 1

Please rate the ease and/or difficulty of this task on a scale of 1 to 5, with 5 being very easy.

Very Difficult ①–②–③–④–⑤ Very Easy

Please describe Evie in your own words.

Please describe HOURCAR in your own words.

Which service would you use for a road trip?

What does this form sign up for?

How did you locate the information about the membership plans?

### Scenario 2

You took the bus to a grocery store in Midway, Saint Paul. As you're leaving, you realize you bought too much to bring home on the bus. You decide to use a car share service to get home with your groceries.

#### Tasks, Scenario 2

1. Begin at the [Evie Home Page](#).
2. Use the website to decide whether Evie or HOURCAR is the better option for this trip.
3. Say “I’m done” when you have an answer.

#### Post-Task Question, Scenario 2

Please rate the ease and/or difficulty of finding this information on a scale of 1 to 5, with 5 being very easy.

Very Difficult ①–②–③–④–⑤ Very Easy

What makes that service the best option for this scenario?

How did you locate this information?

Does this website make you feel confident in this decision?

### Scenario 3

You are driving an electric Evie rental. The car is running low on battery outside of the Twin Cities, and you can't make it to your destination without charging. You pull up to a third-party charger.

Tasks, Scenario 3

1. Begin at the [Evie Home Page](#).
2. Determine how to pay for and start the charge using the information on the website.
3. Say “I’m done” when you have an answer

#### Post-Task Question, Scenario 3

Please rate the ease and/or difficulty of this task on a scale of 1 to 5, with 5 being very easy.

Very Difficult ①–②–③–④–⑤ Very Easy

How did you locate this information?

Why did you take the steps you did?

Based on this experience, would you feel confident paying for this charge?

### Scenario 4

You got into a minor collision while driving an Evie rental car.

#### Tasks, Scenario 4

1. Begin at the [Evie Home Page](#).
2. Say “I’m ready” when you’re ready to start.
3. You’ll have one minute to find the insurance information for the rental.
4. Say “I found it” once you have located the information.

**Post-Task Question, Scenario 4**

Please rate the ease and/or difficulty of this task on a scale of 1 to 5, with 5 being very easy.

**Very Difficult** ①—②—③—④—⑤ **Very Easy**

How did you locate this information?

Why did you take the steps you did?



## **Appendix E: Debriefing Interview Questions**

### **Main Page(s)**

1. What was your first impression of the site?
2. Did your impression change while you were using the site?
3. Was it made clear what Evie and HOURCAR are?
4. Could you easily tell how Evie and HOURCAR were related?
5. Was it clear what the difference between the services was?
6. How easy was it to choose a plan?

### **Wiki Page**

1. Was the wiki page easy to find?
2. Once you were on the Wiki, could you find the information you were looking for?
3. Is the wiki page easily understandable?
4. How confident are you in finding information on the HOURCAR Wiki?

### **Overall**

1. After this experience, are you more or less inclined to use HOURCAR services for short-term car rentals? Why or why not?
2. If you rented a car from HOURCAR and were unsure about something, would you feel confident finding what you need?
3. If you could magically change anything about the websites you evaluated tonight, what would you change?