

Introduction

Title: "Pedal Perfect: Optimizing the Ultimate Biking Adventure Platform"

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Stakeholders: PedalPal users/customers, product owners, designers, developers, project managers, marketing team, customer support team, business stakeholders (investors, partners, sponsors)–PedalPal CEO and CTO

Date: 06/11/23

Project background: The project focuses on the development of Pedal Pal, a comprehensive website and app catering to outdoor cycling enthusiasts. Pedal Pal serves as a one-stop shop for planning biking adventures, providing features such as trail/route search, trail information and maps, user reviews, and more. With a range of functionalities and resources, Pedal Pal aims to be the go-to tool for riders to explore, track, and enjoy their biking adventures seamlessly.

To ensure an optimal user experience, it is essential to assess the ease of completing key tasks such as searching for trails/routes, accessing trail information, and reading user reviews. By conducting research, we aim to identify any potential challenges or pain points that users may encounter during the browsing, planning, and tracking process. Understanding these specific challenges will enable us to refine Pedal Pal and enhance its overall functionality, making it the ultimate companion for outdoor cycling enthusiasts in their biking adventures. It is necessary to conduct research to understand user needs and preferences in order to develop a user-centric and feature-rich platform.

PedalPal Research Goals

1. Determine if users can search for a biking trail/route using filters
2. Ascertain whether users can perform certain core tasks associated with the search results
3. Identify the key features and functionalities that are most important to outdoor cycling enthusiasts.
4. Determine the usability and user-friendliness of the website/app.
5. Assess the effectiveness of the platform in facilitating the planning and enjoyment of biking adventures.
6. Gather feedback on potential improvements and additional features to enhance the user experience.

Research questions

PedalPal Research Questions

1. What are the most crucial features and functionalities outdoor cycling enthusiasts expect from a one-stop platform for planning biking adventures?
2. How user-friendly and intuitive is the website/app interface?
3. Does the platform effectively meet the needs of users when it comes to searching for trails/routes, accessing trail information and maps, and reading user reviews?
4. How does the platform contribute to the overall experience and enjoyment of biking adventures?



5. What improvements or additional features do users suggest to enhance the platform?

PedalPal KPIs

- Completion rate: Measure the percentage of users who successfully complete key tasks on the platform.
- User satisfaction: Assess user satisfaction through post-interaction surveys or feedback.
- Time on task: Measure the time taken by users to complete specific tasks, aiming for efficiency.
- User engagement: Track user engagement metrics such as the number of trails/routes saved, reviews submitted, etc.
- Conversion rate: Monitor the number of users who convert from planning to actually embarking on biking adventures using the platform.

*The System Usability Scale (SUS) is a standardized questionnaire that is used to measure the usability of a wide range of interactive systems, including websites, software applications, and mobile apps. The SUS was first introduced by John Brooke in 1986 and has since become a popular tool for evaluating the usability of digital products.

The SUS consists of 10 statements that are designed to assess the user's perceptions of the usability of the system being evaluated. The statements are measured on a 5-point Likert scale, with responses ranging from "Strongly Agree" to "Strongly Disagree". The 10 statements are:

1. I think that I would like to use this system frequently.
2. I found the system unnecessarily complex.
3. I thought the system was easy to use.
4. I think that I would need the support of a technical person to be able to use this system.
5. I found the various functions in this system were well integrated.
6. I thought there was too much inconsistency in this system.
7. I would imagine that most people would learn to use this system very quickly.
8. I found the system very cumbersome to use.
9. I felt very confident using the system.
10. I needed to learn a lot of things before I could get going with this system.

The SUS is a reliable and valid tool for measuring the usability of a system. It is easy to administer and has been shown to be effective in identifying usability issues and measuring improvements in usability over time. It can be used in combination with other methods, such as user testing and expert evaluations, to provide a comprehensive picture of a system's usability.

Key Performance Indicators (KPIs)

Pedal Pal Methodology

- Usability testing: Conduct in-person or remote usability testing sessions where participants are observed while interacting with the website/app. This will provide insights into usability, navigation, and overall user experience.
- Surveys: Administer surveys to gather feedback on user expectations, satisfaction, and suggestions for improvement.
- Interviews: Conduct interviews with a select group of users to gain deeper

Methodology



- insights into their needs, pain points, and desired features.
- Competitive analysis: Evaluate existing biking websites/apps to identify strengths and weaknesses, and to understand market trends.

Participants

PedalPal Participants:

Recruit a diverse group of outdoor cycling enthusiasts who have experience with planning biking adventures. Ensure representation from different skill levels, age groups, and geographical locations to capture a range of perspectives. Participants for the study should meet the following criteria:

- Own a bicycle and use it more than once a week.
- Engage in frequent bike riding, whether for work, recreation, or competition.
- Include a diverse range of participants, encompassing different age groups, employment statuses (full-time, part-time), and college students.
- Ensure equal representation of genders and include participants with different abilities.
- Aim for a balanced gender distribution, with 4 female, 4 male, and 1 non-binary participant.
- Include one participant who is not fluent in English.
- Include one participant with an auditory impairment.
- Age range should span from 18 to 65 years.

Incentive: \$25 PedalPal electronic gift card for participating in the study (redeemable online).

Script/ Discussion Guide

PedalPal Script

During the usability study, participants will be given tasks such as:

- Search for biking trails/routes in a specific location.
- Explore and view trail information, including difficulty level, distance, elevation, etc.
- Navigate through the app/website to find user reviews and ratings for trails/routes.
- Save or bookmark favorite trails/routes for future reference.
- Provide feedback on the overall user experience and suggest any improvements or additional features they would like to see.

Before the usability study:

Introduction:

"Hello, thank you very much for taking the time to participate in this study and share your opinions. We'll start with a few questions, and then you'll receive some task prompts to complete while using the app. These tasks will appear on your screen, so you can go through each one at your own pace. Your feedback and comments are really valuable for our team, and we'll use your recommendations to make future improvements to the app to provide users like you a better experience. Please feel free to share your thoughts honestly, and keep in mind that there are no right or wrong answers. Let's get started!"



Before we begin, do I have your consent to take both audio and video recordings of this interview?

- I want you to know that this isn't a test. There is no "right" answer, and none of your responses will be considered wrong.
- If you have any questions, please don't hesitate to ask.
- This data is being collected to help improve a bicycle app. Your answers will help us make the app easier for people to use.

Warm-up:

- Please tell us a little about yourself.
- How frequently do you use your bike for recreational or competitive purposes?
- What factors do you consider when choosing biking routes or trails?
- How often do you use apps or websites for planning your biking adventures?

Basic questions:

- What kind of city or town do you live in?
- Do you own a bicycle?
- How often do you ride your bike?
- Do you have bike paths near your house?
- How do you find bike trails and routes?
- How many bikes do you own?
- What kind of bikes are they (road, mountain, foldable, etc.)?
- How many times a week do you use your bike?
- Do you use your bike for recreation, competition, commuting, or a combination of uses?
- How many times a week do you order bike products?
- Do you bike alone or with other bikers?
- Can you talk me through a normal day in your life?

Great! If you're ready, let's move onto the tasks you'll be working on.

During the unmoderated usability study:

Task prompts and follow-up questions:

1. *Prompt:* Starting from the homepage, search for biking trails in your local area.
- *Follow-up question:* How easy or difficult was this task? Is there anything you would change about the process of finding biking trails?
2. *Prompt:* Explore a specific biking trail/route in detail, including distance, elevation, and user reviews.
- *Follow-up question:* How do you feel about the provided trail information? Did you find it comprehensive and useful?
3. *Prompt:* Plan a biking route for a specific distance and difficulty level.
- *Follow-up question:* How easy or difficult was it to plan the biking route? Were the available options sufficient for your needs?
4. *Prompt:* Save or bookmark a favorite biking trail/route for future reference.
- *Follow-up question:* Was the process of saving or bookmarking trails straightforward and intuitive?
5. *Prompt:* Provide feedback on the overall user experience of the app.
- *Follow-up question:* What did you like and dislike about your experience with the app? Are there any specific areas where you think improvements could be made?





After the unmoderated usability study:

Participants will complete the System Usability Study (SUS). Participants will score the following ten statements by selecting one of five responses that range from “Strongly Disagree” to “Strongly Agree.”

1. I think that I would use this app frequently.
2. I find the app unnecessarily complex.
3. I think the app is easy to use.
4. I need the support of a technical person to be able to use this app.
5. I find the app easy to navigate.
6. There is inconsistency within the app.
7. I imagine that most people would learn to use this app quickly.
8. I feel confident using the app.
9. I need to learn a lot of things before I can start using this app.
10. The main user flow is clear.

