



# The Usability Test Of Green P Application

## The Efficiency Of Accessing Parking Information

### INTRODUCTION

The Green P application from the Toronto Parking Authority is an application that assists users to find and pay for their parking spots in Toronto through mobile devices. The main functions of this application are finding available parking spots, and paying for the parking spot. However, there is still an issue for some drivers in looking for parking spots in Toronto. This usability test is conducted to evaluate the efficiency of accessing and using parking information during finding parking spots via the Green P application.

### OBJECTIVE

The overall objective is to evaluate the efficiency of accessing and using parking spot information during finding parking spots. The main research questions are listed below:

**Research question:**

- 1. Is the access of parking information efficient in finding parking with different needs?
- 2. Is it easy and fast for users to access and compare the parking information through the application?
- 3. Are there any obstacles or errors in the access of parking information that interfere users to achieve their goal?
- 4. What are obstacles or errors that the users have during accessing the parking information?

### METHODOLOGY

The usability test is conducted with the walk through methodology. During the test, participants are encouraged to think loud. The test is a discount usability test, therefore there are 5 participants contribute data in the test. The test approximately takes 20 minutes.

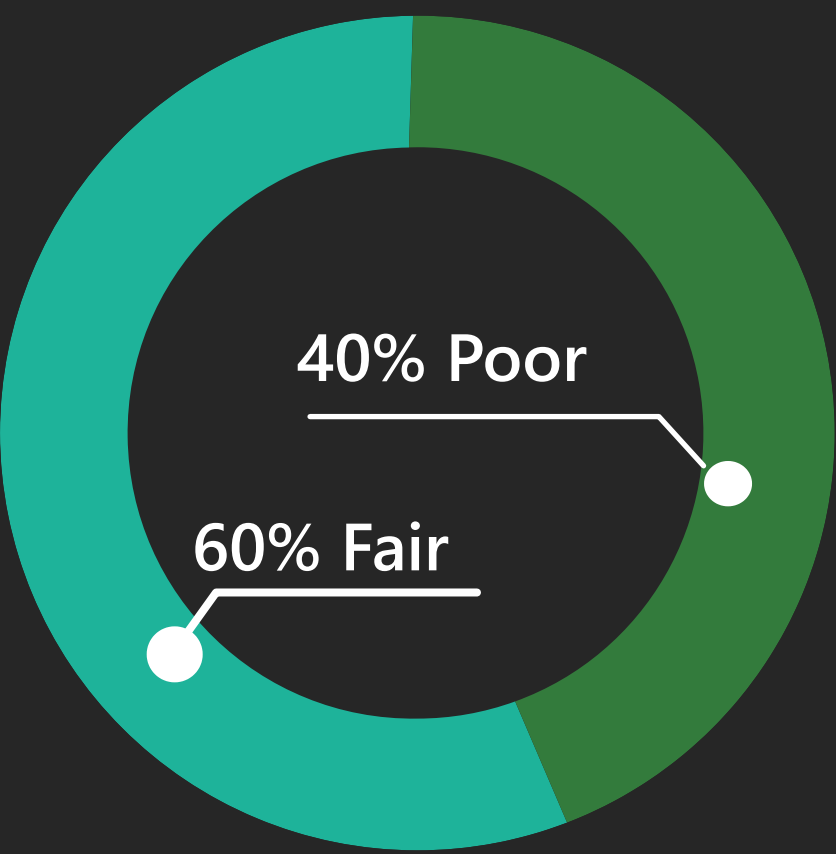
**Test procedure:**

- Task 1: Participant needs to find parking spot options surround the designated location
- Task 2: Participant needs to find an available parking spot surround the designated location
- Task 3: Participant needs to find the cheapest parking spot surround the designated location

### FINDINGS

#### 1 Understanding The Efficiency Of Accessing Parking

##### Average Efficiency Evaluation of The Accessing Parking Information



In general analysis, majority of participants think the efficiency application is fair. There are 40% of participants evaluate the application with poor efficiency after completing the test. None of the participants agree that the application is good efficiency in the accessing parking information

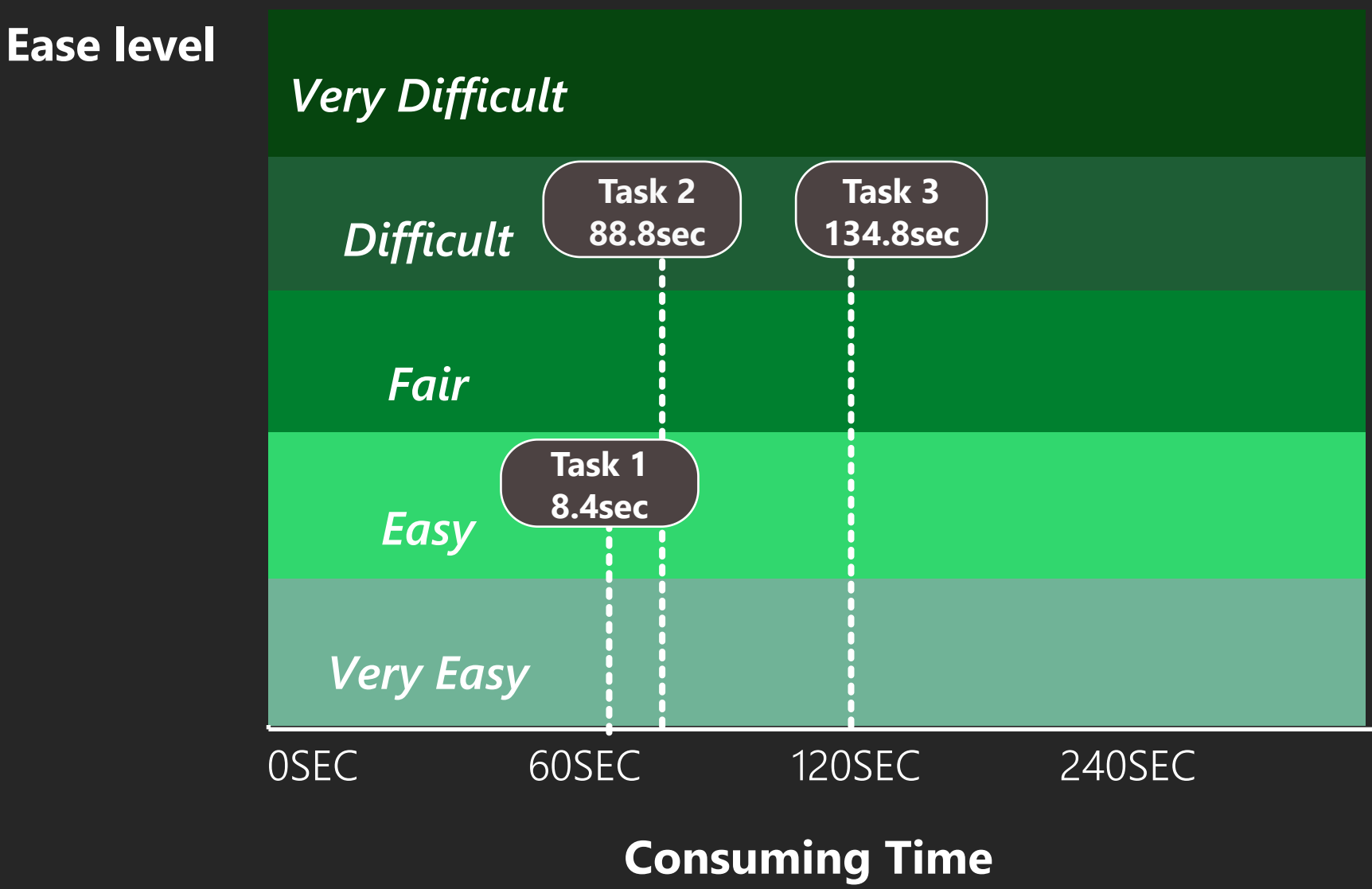
##### Average Accomplished Time

99.33SEC

The average time for completing all three tasks are 99.33 seconds. Task three is the most time consuming out of three tasks, on average.

#### 2 Understanding the Ease level of The Application

##### Ease Level and Average Accomplished Time For Each Task



In the individual task, participants evaluate the difficulty level of each task to show how difficult they feel of completing the task. For task one, the ease level is evaluated as easy, and the average accomplished time is 78.4 second. The task two is evaluated as difficult level and it takes longer with a time of 88.8 seconds. The third task is evaluated as difficult level, and it takes the longest time out of three tasks.

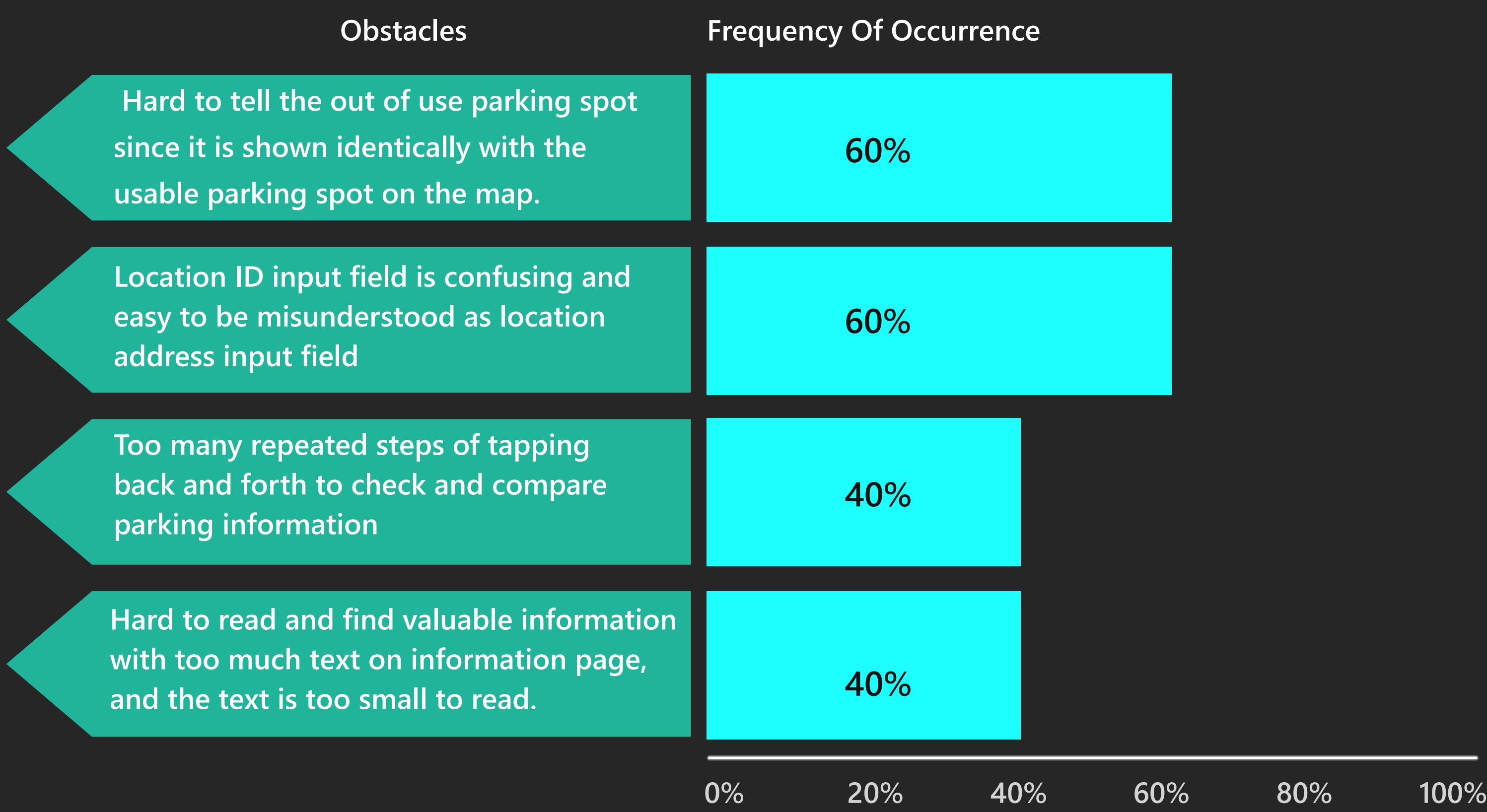
##### Agreement Rate On Easy To Use Of The Application

20%

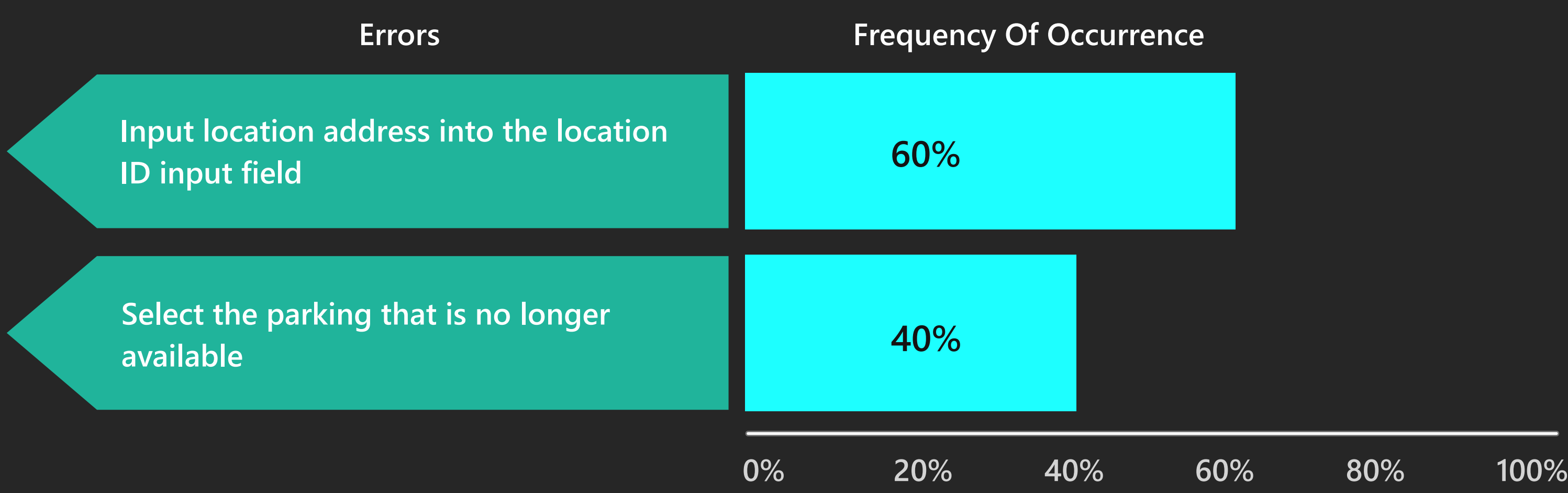
In the test, there are 20% of participants whom agree that the access parking information function in the application is easy to use. The average ease level is evaluated as fair based on the data.

#### 3 understanding the Existing Obstacles and Errors

##### The Obstacles participants met and Frequency Of Occurrence



##### The Errors and Frequency Of Occurrence



### CONCLUSION

1. The efficiency of accessing parking information in the Green P application is below high level based on the reviews from participants. Majority evaluate the efficiency of accessing parking information function in the fair level, and 40% participants think it is poor efficiency. It implies that this function in the application needs to improved in its efficiency.

2. In the ease of use survey, the average ease level is evaluated in fair. In all three tasks, the task two and task three are more challenging and time consuming for participants. It shows that access of parking information function is not easy to use in achieving the goal of finding available parking and comparing prices.

3. The obstacles and errors are existing and interfering the efficiency of the access parking information function.

### SUGGESTIONS

Based on the pain points and errors, the improvement suggestions are listed:

- Simplify the repeated steps in accessing information, and visualize the important information on the map.
- Distinguish the available and unavailable parking spots with different colours labels.
- Redesign the home page with the input address field for finding parking, to make find parking function more visual and accessible.
- Enlarge the font size of the text in information page, so the information will be easier to read.