

Quality & Safety of Bike Routes in Vancouver

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Background

In the past decade, metropolitan areas have prioritized their focus on the development of bike routes and biking systems in the efforts of promoting healthier lifestyles environmentally and economically. In order to encourage healthy lifestyles biking systems, such as Mobi, have encouraged biking as the ideal source of transportation. This project looks specifically into the quality of Vancouver's bike routes.

Project Design

The main purpose for our study is to analyze aspects of Vancouver's bike routes, specifically looking at the Lion's Gate Bridge, West 10th (between Cambie and Yukon) and the Science World Seawall, in order to determine areas that work well and those that require improvement.

INCLUSION CRITERIA: Cyclists in Vancouver who use the bike routes specified for transportation or leisure.

SURVEYS: Short and quick surveys were conducted at the selected bike routes. As a group, we used medium sized signs to illustrate our survey questions and to ensure that were very visible to oncoming cyclists. Responses were recorded by observing the number of thumbs up and thumbs down given by the cyclists.

CONSENT: Since the target population was not able to stop at all times, an information sheet describing the study, contacts for questions, and acknowledgements of personal information security/ withdrawal options was provided to those who were able to accept the form in a safe manner.

ROUTE 1: Lion's Gate Bridge

This bike route is a connector suspension bridge from downtown Vancouver to the North Shore of Vancouver. Three factors were chosen based on the All Ages and Abilities (AAA) Cycling Routes from the Transportation Design Guidelines (Vancouver, C.O., 2018).

Factor 1: Barriers

Q: Do the barriers in place make you feel safe?
Response: Yes (3); No (2)

Factor 2: Surface Quality

Q: Should we fix the pavement you are riding on?
Response: Yes (3); No (2)

Factor 3: Spacing

Q: Should there be a separate area for pedestrians to walk?
Response: Yes (4); No (1)

Limitation: Only 5 responses per question due to low cyclist traffic in area.

ROUTE 2: Science World Seawall

The seawall bike route at Science World is very scenic and beautiful. It is primarily used for leisure bike rides but still has its share of cyclists who use the route for transportation. Unlike the bike route on West 10th Avenue, this bike route is not as populated on weekdays.

Factor 1: Barriers

Q: Should there be barriers to block people from the water?
Response: Yes (15) No (0)

Factor 2: Spacing

Q: Do people (pedestrians) get in your way?
Response: Yes (12) No (3)

Factor 3: Signage

Q: Is the signage to separate pedestrians visible?
Responses: Yes (6) No (9)

Limitations: Had to visit the location on different occasions due to the lack of participants.



ROUTE 3: West 10th (Cambie – Yukon)

This bike route is a very high traffic area located in the heart of the city and provides access to healthcare and municipal services (Vancouver, C.O., 2018). This route is highly populated and is primarily used by cyclists travelling to work, school and the health care facilities in the area. The roads are shared by both motor vehicles and bicycles.

Factor 1: Spacing- Motor Vehicles

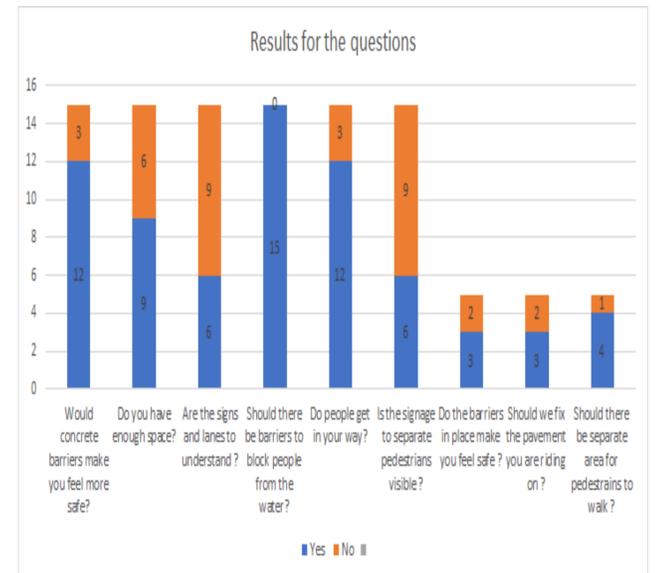
Q: Would concrete barriers make you feel more safe?
Response: Yes (12) No (3)

Factor 2: Spacing- Cyclists

Q: Do you have enough room?
Response: Yes (9) No (6)

Factor 3: Signage/ Lane Markings

Q: Are the signs and lanes easy to understand?
Response: Yes (6) No (9)



Discussion

We were tasked to find out ways we could change and improve the bike routes in Vancouver. Similar to most projects, this project also posed a few challenges. The biggest concern was figuring out ways we could ask cyclist question without having to make them stop. The solution we came up with was to hold a big sign and gain a visual response. We focused on three different questions at each of our chosen locations. Two of the locations provided us with ample sample sizes, while one had a low sample size. We were able to see what aspects of the bike routes were fine for the everyday cyclist on that route. In addition to that, we were also able to find out what aspects were needed to be improved so that there could be greater and better use of the bike routes. However, it should be noted that the project being conducted in the summer may have yielded greater results and a larger sample size at each route.

Implications

Overall: more separation and barriers needed at these routes for improved usage and satisfaction.

Lions Gate Bridge

1. Need for more spacing and separation between cyclists and pedestrians.
2. Minor improvements such as redoing the pavement to make it smoother.

Science World Seawall

1. A dire need for a barrier that would prevent pedestrians and cyclists from the water was stressed as important as a reflection of the responses.
2. The optimization of signs and lane markings to ensure that pedestrians and cyclists can safely operate in respective areas.

West 10th (Cambie to Yukon)

1. Need for barriers separating the cyclists and motor vehicles.
2. Wider bike lanes to allow for more cyclists to ride through the lane at the same time.