

Considering the use of bike lanes by mobility device users: A qualitative study

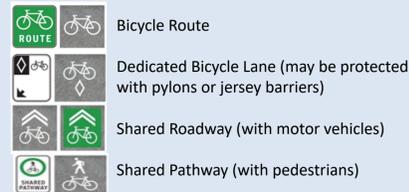
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Introduction

- In some places, mobility device use is only allowed on city sidewalks (CBC News, 2021; Hassanpour & Bigazzi, 2023).
- Individuals who use mobility devices often find themselves using cycle lanes as a preferred means of travel due to poor sidewalk conditions (Shoman & Imine, 2023).
- It is not clear whether cycle infrastructure is accessible for people with disabilities who might be using non-adapted cycles, adaptive (hand) cycles, or their wheeled mobility devices (Cox & Bartle, 2020).

Cycle Lane Markings in City of Vancouver (2024)

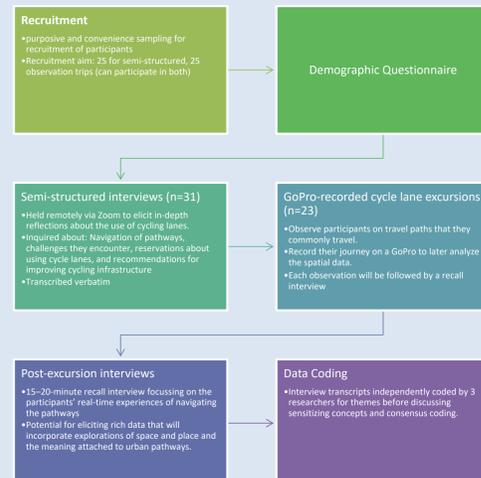


Objectives

- To explore the potential use of cycle lanes by people who use mobility devices.
- To observe mobility device users navigating cycle lanes and their interactions with other path users.

Methods

An ethnographic perspective is taken to guide our understanding of the meaning-making process in the use of pathways (Carpenter & Suto, 2008).



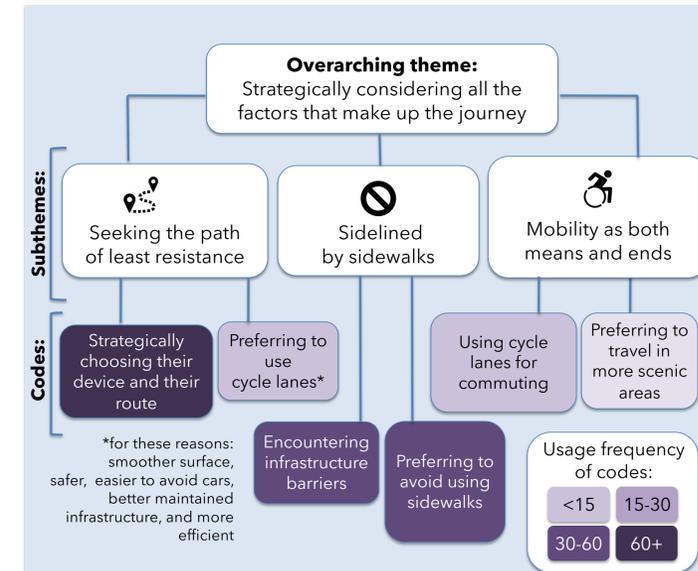
Results

This poster presents the results and implications from the semi-structured interview (n=31) portion of the research study.

Devices Participants Reported Using in their Community (n=31)	Number
Manual wheelchair	15
Power wheelchair	9
Mobility scooter	7
Manual wheelchair with add-on propulsion. Six with electric devices and 1 participant used ski poles to propel self.	7
Bicycle	3
Crutches	3
E-bike	3
Handcycle	2
Walker	2
Recumbent tricycle	1
Cane	1
Visual aid	1

Three main themes were identified:

- Sidelined by sidewalks:** Sidewalk use can be difficult because of factors like poor maintenance, construction, and clutter (e.g., sandwich boards).
- Choosing the path of least resistance:** Participants strategically used a combination of city streets, bike lanes and sidewalks to move around.
- Mobility as both means and ends:** Important decision-making factors participants used included focusing on safety of self and others and valuing routes that are enjoyable (e.g., improving wellbeing and facilitating positive social interactions).



Implications

- The path of least resistance was most often the path that was the smoothest, scenic, and provided internal and external safety.
- Users indicated that using cycle lanes was not only for transportation but also an enjoyable activity and a means of social belonging.
- Users who had access to multiple devices would choose the most suitable device for the cycling infrastructure they needed to access on their journey (e.g., cycle lane, sidewalk, shared path).

Recommendations

- Several users mentioned that they would like an increase in the number of protected cycle lanes available and accessible to them.
- Traffic-calming features, such as roundabouts and other measures that slow vehicle traffic were mentioned as means to create safer journeys.
- Users recommended changing signage to demonstrate more inclusivity for mobility device users.

Future Directions

To support this study, our community partners helped us to develop an ongoing survey to gauge the perspectives of all device users about mobility device users' utilization of cycle lanes.

Acknowledgements

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