Study of interactive map use

What the questionnaire is about

First of all, thank you for your interest! This is a questionnaire about interactive map use, and it is a part of my master's thesis work. In my thesis I've developed a map application and now I would like to find out how people use it. The idea of the questionnaire is that I ask you, the map user, to first use the map and then answer questions about two themes: 1) The usability of the map, and 2) If you learned something new by using the map.

The map is available at https://traveltimematrix.rahtiapp.fi. If you have a computer and an internet connection, you meet the requirements for participating! Completing the questionnaire should take about 10-15 minutes. Below you'll find instructions on using the map and answering the questionnaire. If you have further questions, you can contact me directly at eemil.haapanen@helsinki.fi.
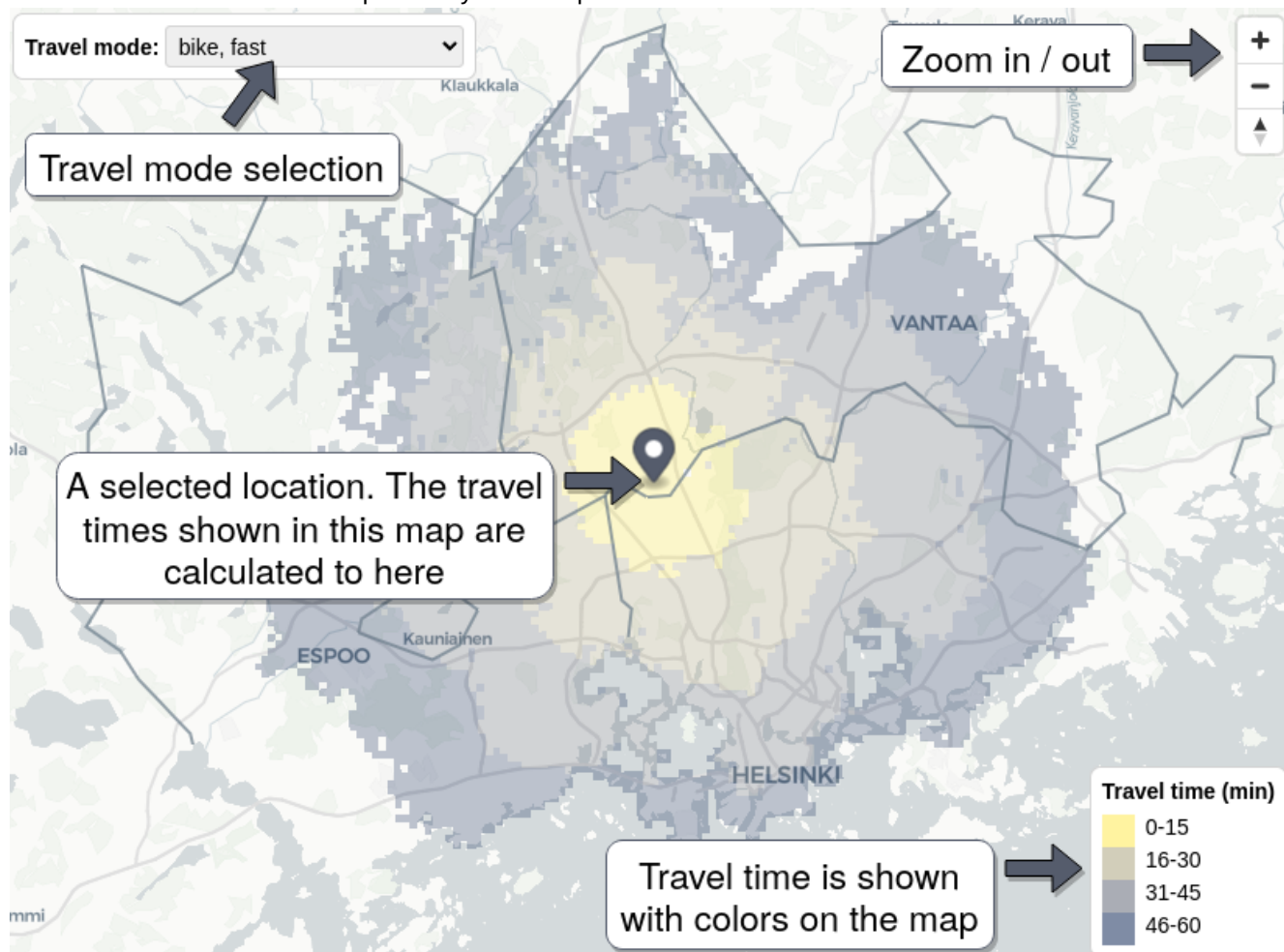
How the map works

The map you will be using is about geographical accessibility. The map works like this: You can select a travel mode and any location in the Helsinki Metropolitan region (Pääkaupunkiseutu). The map shows how long it takes to reach the selected location with the selected travel mode. On the map, travel time is shown with colored areas. Each area is colored based on the amount of travel time that is needed to reach the selected location from that area.

When answering the questionnaire, you can think of the size of the area from where you can reach the selected location as a measure of the selected location's accessibility. For example: When using public transport, you can say that Pasila is more accessible than Laajasalo because the area from where you can reach Pasila is larger than the area from where you can reach Laajasalo.

When using the map, you can select the location where the travel times are calculated to with the mouse. By default, the location follows the mouse pointer, and the map changes when you move the mouse. You can lock the map on the location where your mouse pointer is by clicking once, and unlock the map by clicking again.

Below is a screenshot of the map with key features pointed out:

How to answer the questionnaire

The questionnaire gives you short tasks to complete using the map, and asks questions after each task. Complete the questionnaire by following the tasks and answering the questions. If a question requires you to write an answer, **you can write in English, Finnish or Swedish**.

It is expected that you are using the map while answering the questions. A computer with a touchpad or a mouse is required to use the map functionalities needed in this questionnaire.

How your data will be used

The data collected in this survey will be used for a master's thesis in the University of Helsinki. The data will be available only to the author of the thesis, and it will be kept only for the duration of the thesis work. No sensitive personal information is collected in this questionnaire. Questions about non-sensitive personal information (age group, gender) are optional. They are included in the questionnaire only to see how different groups of people are represented in the sample of participants. Your participation in this survey is voluntary.

Data controller:

University of Helsinki

Address: PO Box (Fabianinkatu 33), 00014 University of Helsinki, Finland

You can contact the thesis author via email at eemil.haapanen@helsinki.fi.

You can contact the University of Helsinki data protection officer via email at tietosuoja@helsinki.fi.

Task 1

1. Zoom to the Helsinki city center and click on the central Railway station. This locks the map on that location. The travel times shown on the map are calculated to here.

2. Compare how accessible this location is by different travel modes.

(A link to the map)

How long would it take for an average walker to reach the railway station from Kulosaari (located north-east of the city center)?
- ○ 0-15 min
- ○ 16-30 min
- ○ 31-45 min
- ○ 46-60 min
- ○ more than 60 min

Could a fast cyclist reach the railway station in an hour from southern Vantaa?
- ○ Yes
- ○ No

Task 2

1. Select *"public transport, rush hour"* as the travel mode.

2. Lock the map on Vantaa. Use the map label "Vantaa" to determine the location.

3. Lock the map on Espoo (again using the map label).

4. Compare the accessibility of the two locations by alternating the map between them (by repeating steps 2 and 3).

[(A link to the map)](#)

Which location do you think is more accessible within 30 minutes of travel by public transport?
- ◯ Espoo
- ◯ Vantaa
- ◯ Cannot tell

Task 3

This is the same comparison you did in task 2, but instead of locking the map, you'll hover around each city with the mouse.

1. Keep *"public transport, rush hour"* as the travel mode.

2. Activate the hovering mode so the map follows the movement of your mouse. From a locked map you can activate the hovering mode by clicking on the map once.

3. Compare the accessibility of Espoo and Vantaa by hovering around both cities with the mouse.

[(A link to the map)](#)

Which city do you now think is more accessible within the same 30 minutes of travel by public transport?
- ◯ Espoo
- ◯ Vantaa
- ◯ Cannot tell

Do you think this question is harder or easier to answer now?
- ◯ Harder
- ◯ Easier
- ◯ Same

Task 4

Select two locations on the map and compare their accessibility. The locations can be anywhere within the Helsinki metropolitan region.

[(A link to the map)](#)

How did you carry out this task?
- ◯ I used the locked map mode more
- ◯ I used the hovering mode more

Task 5

How does the accessibility change when moving between the locations you picked in task 4? Compare the accessibility at different places along a route between the two locations and observe the changes that happen along the route.

[(A link to the map)](#)

How did you carry out this task?
- ○ I used the locked map mode more
- ○ I used the hovering mode more

General questions

[(A link to the map)](#)

When working with the interactive map to explore and assess accessibility, which functionality was the most useful to you?
- ○ Clicking the map to change the location and producing still maps
- ○ Hovering with the mouse to change location and producing constantly changing maps
- ○ Selecting and comparing different travel modes
- ○ Other, fill below

The most useful functionality was: [_____]

After completing the tasks above, has your perception and understanding of accessibility in the Helsinki metropolitan region, and more generally, your idea of the concept of accessibility, changed?
- ○ Yes
- ○ No

How did you understanding of accessibility change? You can skip this question if you answered "No" above.

[   ]

Did you find the map easy to use? If not, what made it difficult?
- ○ Yes
- ○ No, write below

Using the map was difficult because: [_____]

Background information

Have you seen maps about geographical accessibility before?
- ○ Yes
- ○ No

How familiar are you with the Helsinki region geographically?
- ○ Not at all familiar
- ○ Somewhat familiar
- ○ Very familiar

What modes of transport have you used within the last week?
- ☐ Walking
- ☐ Bike
- ☐ Public transport
- ☐ Car

How often do you usually use interactive map applications (for example Google maps or HSL journey planner (reittiopas))?

- ○ Daily
- ○ At least once a week
- ○ At least once a month
- ○ I do not use interactive map applications

Demographic information

The following information is optional and will not be used in the analysis. It's purpose is only to see how different groups of people are represented in the sample of participants.

Gender
- ○ Male
- ○ Female
- ○ Other
- ○ Do not want to tell

Age (years)
- ○ Below 15
- ○ 15-34
- ○ 35-64
- ○ Over 64
- ○ Do not want to tell

Proceed

Save