

To what extent do people comply with COVID-19 measures?



in the Faculty of Architecture building at Tu Delft, and
in any public space with a freely available webcam stream



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Introduction

COVID-19 was a major opportunity to observe how the physical environment and actors support or interfere with behaviors taking place within it. Social distancing, wearing of face masks and the use of hand sanitizers are just a few examples that affected our daily habits. In the MBE case studies course, students practiced behavioral mapping and shadowing research methods. The research aim was to observe if actors in a particular physical environment follow the local Covid-19 rules and how the physical environment and other actors play a role in this.

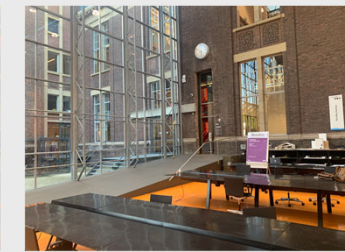
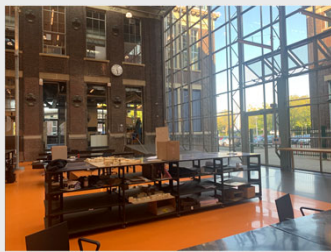
In September 2020, students were still allowed to visit the faculty building. In the faculty building, students conducted observations in person and observed if actors would follow the Covid-19 rules. In March 2021, in the second Dutch lock-down, students had to remain at home. Since the observations in person were not possible, students used publicly available webcam streams to record behaviors at various locations around the world. Because Covid-19 regulations differ per country, students had to elaborate if rules were followed and what local circumstances would support or interfere with their behaviors. The use of webcams to observe behaviors is a novelty. Students had to evaluate the usefulness of both methods to observe particular behaviors. Based on their experiences, we learned the usefulness and pitfalls of the different observational methods.

The students were guided by Maja Kevdzija (TU Wien, Erasmus teaching visit), Jelle Koolwijk (TU Delft, MBE) and Clarine van Oel (TU Delft, MBE).

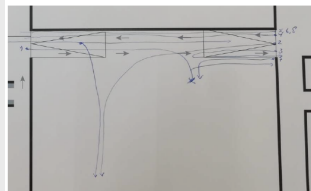
On this poster, we showcase some of the slides produced by our students. We feel the students were energetic and curious about learning these new methods.

1st Lockdown – Faculty of Architecture

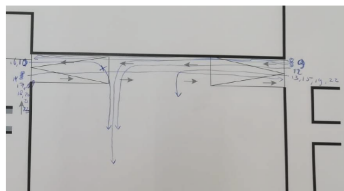
In the first lockdown, students performed their observations in person. In the Faculty of Architecture building, they had to observe if actors would follow the COVID-19 regulations with the use of shadowing and behavioural mapping. In many occasions, students observed breaches of the COVID-19 rules, such as not using the hand sanitizers and not keeping the 1,5m distance. Presented are the examples of positions and observation sheets from in-person observations.



Observer 3 - timestamp: 10:55-11:02



Observer 3 - timestamp: 11:02-11:20

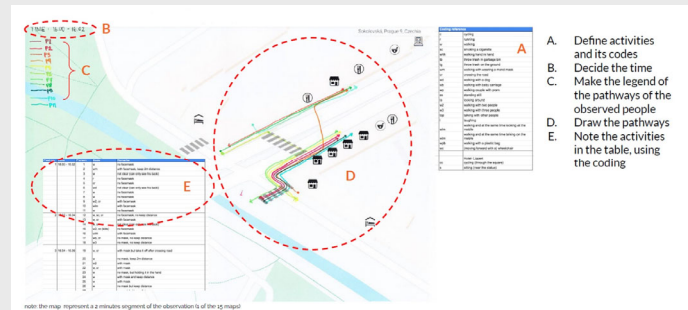
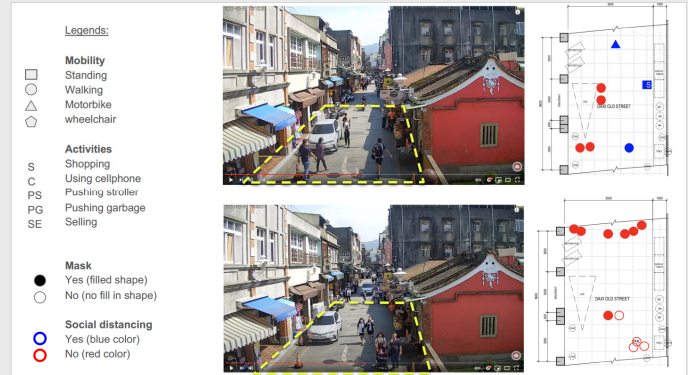


Person	Time	Man	Woman	Used disinfectant	No use of disinfectant	Follows lanes	Does not follow arrows	Keeps 1.5 m distance	Not keeps 1.5 m distance	Stops	Does not stop	Notes
1	10:56											
2	10:56											
3	10:57											
4	10:58											
5	10:58											
6	10:59											
7	10:59											
8	11:00											
9	11:01											
10	11:02											
11	11:03											
12	11:03											
13	11:03											
14	11:03											
15	11:03											
16	11:05											
17	11:07											
18	11:07											
19	11:07											
20	11:08											
21	11:08											
22	11:09											
23	11:11											
24	11:15											
25	11:16											
26	11:17											
27	11:18											

Observations by Fieke Noordam, Betsy Mulder and Lisanne van der Velden.
Photo's by Kristi Fishta, Carlos Luchau and Danica A. Widarta

2nd Lockdown – Globally by the use of webcams

In the second lockdown, students used webcam streams from different countries, such as Czech Republic, Germany, Netherlands, Russia and Taiwan, to perform observations. First, they analysed the local COVID-19 measures, and developed an observational method that allowed them to systematically measure if actors followed those measures. Presented are examples of methods used to measure behaviours in Taiwan and Czech republic by two of the groups.



Observations top: Margarita Barcia, Zisis Vamvas and Ziyao Cheng.
Observations bottom: Priitha Hayuningtyas, Krystof Kratochvil, My-le Tson

What we have learned about the two observational methods

Observations in person

Can be very time-consuming, expensive and exhausting.
Possible to interact with participants.
Possible to find the best viewpoint to observe a certain situation.
Since actions are happening in real-time, something can be missed.
Difficult to stay „invisible“, participants might alter their behaviour.
Informed consent, no permanent images of the participants.

Observations by webcam

Can be done from behind a desk (no fieldwork needed=Low-cost)
„Why“ questions can't be answered.
The viewpoint is fixed and can influence the collected data.
Possible to do screenshots of particular situations or even rewind.
Participants don't know that they are being observed.
Surveillance, privacy concerns for people who are being observed.

Acknowledgement

This research would not have been possible without the efforts of our students who participated in the case studies course in the year 2020-2021: Carlos, Danica, Kristi, Anil, Jamie, Max, Betsy, Fieke, Lisanne, Akshit, Fabrizio, Jamila, Kosmas, Boaz, Bram, Charmaine, Cagrihan, Hugo, Joia, David, Gabriela, Manela, David, Suzanne, Thuis, Jan, Joep, Lennart, Margarita, Ziyao, Zisis, Priitha, Krystof, Myle, Lisa, Tessie, Bernice, Corne, Sebastiaan, Mare, Willem, Douwe, Josefien and Marjon.