

Pedestrian signals with countdown timer



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Purpose of the behavioural study



To collect statistics about pedestrian behaviour, before and after establishment of signals with countdown timer



Countdown signal



Countdown during the entire red period



Countdown during the entire green period



Nørre Voldgade / Frederiksborggade



- Train and Metro station
- No cars crossing - only buses and cyclists
- Traffic light cycles:
70-70-70-60

Vester Voldgade / Strøget



- Many tourists
- Traffic intensity 6 am - 6 pm:
11,000 vehicles
- Traffic light cycles:
70-70-70-60

H. C. Andersens Boulevard / Vesterbrogade



- 3 lanes in both directions
- Traffic intensity 6 am - 6 pm:
45.000 vehicles
- Traffic light cycles:
100-100-80-60

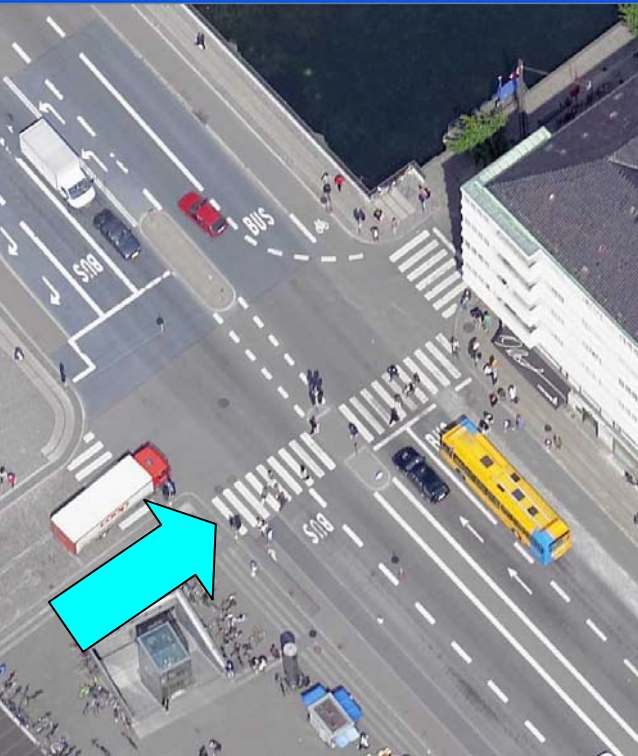
Video recording



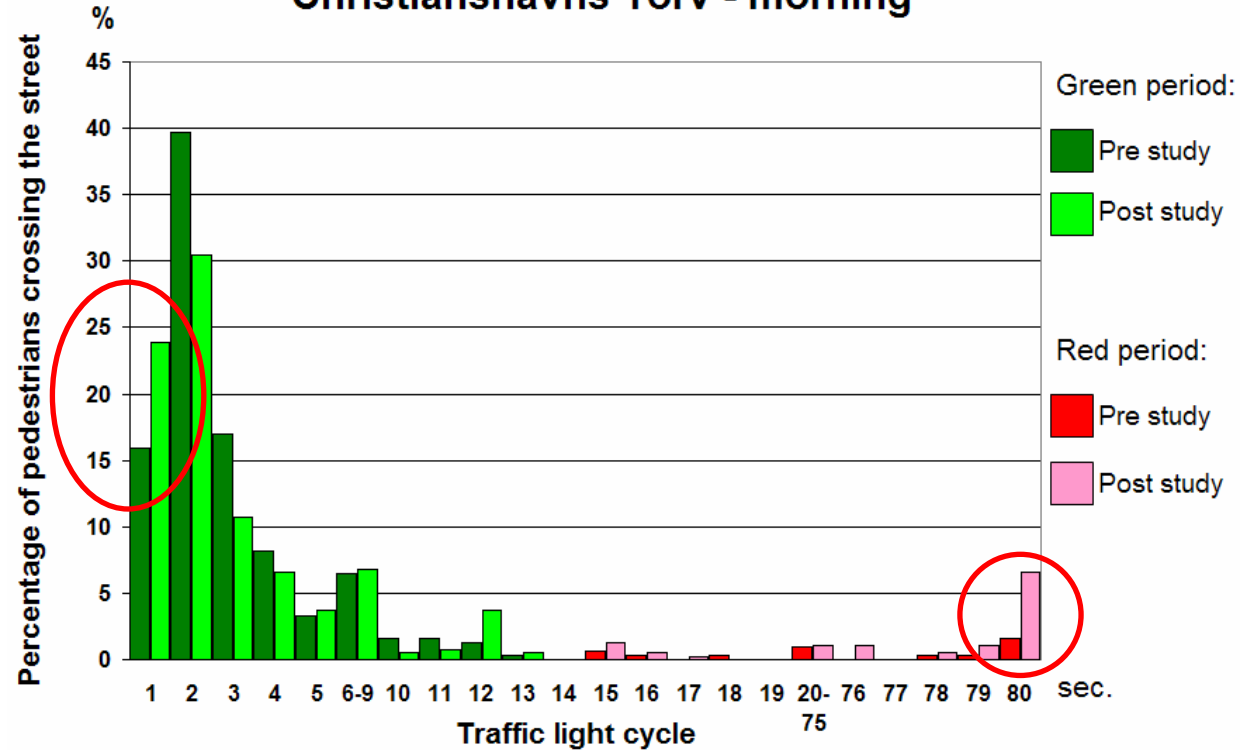
Interviews



Pedestrian flow density



Christianshavns Torv - morning



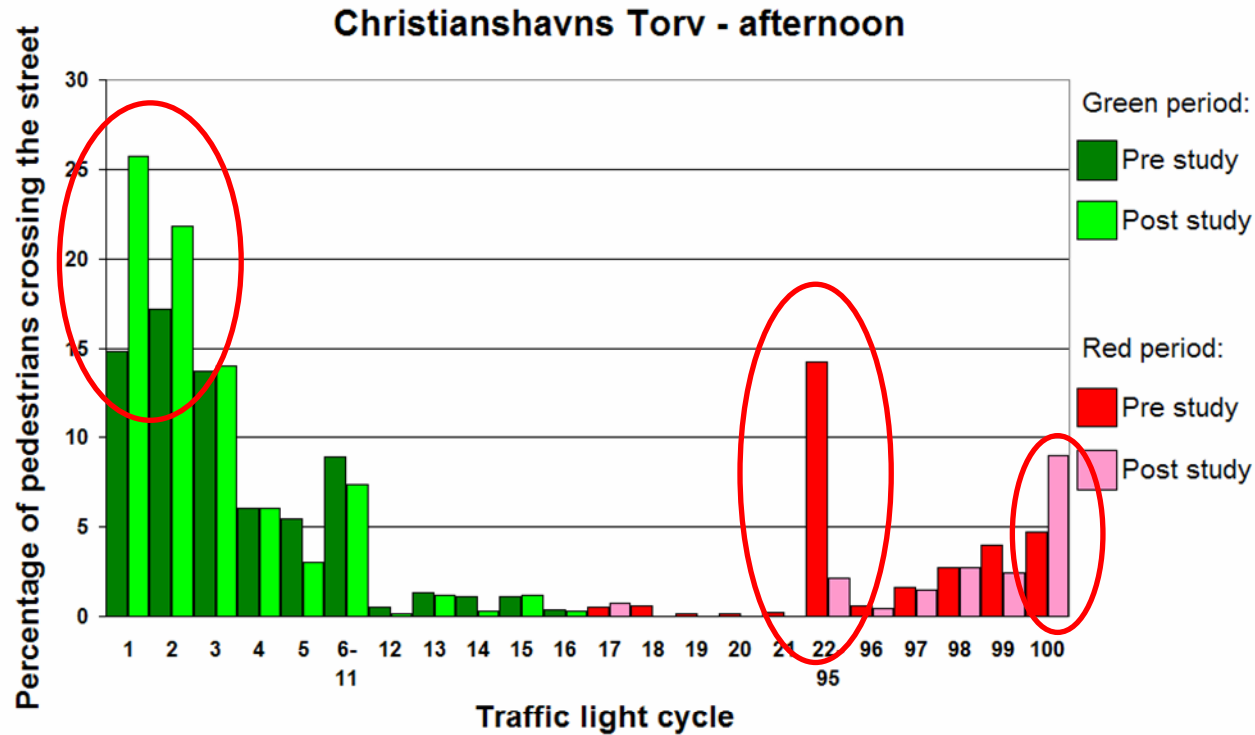
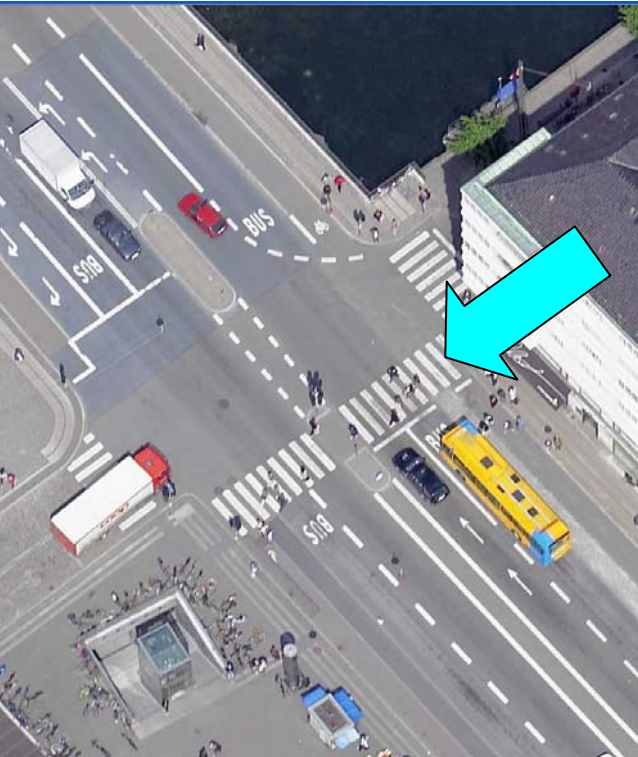
Pedestrians crossing during red period: Pre study:

5%

Post study:

12%

Pedestrian flow density



Pedestrians crossing during red period: Pre study:

29%

Post study:

19%





Most significant results



- Pedestrians used the countdown information
- Increase in number of pedestrians crossing during the first 3 sec. of the green period
- Increase in number of pedestrians crossing during the last 3 sec. of the red time
- Decrease in number of pedestrians crossing in the middle part of the red period
- General decrease of pedestrians crossing during the red period: 14% to 12%
- 91% of interviewed pedestrians think the countdown information is useful

- As a consequence of the study, it's now a legal possibility to put up pedestrian signals with countdown timer
- We put up countdown signals in two more crossings