

London Living Streets



The impact of wait time reduction on the pedestrian user experience at signalised crossings in London

Briefing Note

M.F. Grahn

7th December 2018

London Living Streets (LLS) has been working together with Transport for London (TfL) to improve how signalised crossings operate for the benefit of those on foot.

During September and October 2018 LLS carried out a study to examine the impact of TfL's programme of crossing timing reviews being carried out as part of the TfL Walking Action Plan published in July 2018.

This study, designed and run by LLS, used volunteers to interview people using a sample of 12 mid-link signalised crossings in London. The crossings were selected by TfL network managers to be representative of London's crossings and to be capable of having the pedestrian wait time modified within the time-frame of the study.

Two sets of interviews, generally in the morning and evening peak periods, were carried out on each crossing over a two-week period. Once these interviews had been completed the crossing timings were adjusted by TfL. The interviews were then repeated at each crossing after a 3-4 week gap.

Wait time reductions of between 0 and 56 seconds were achieved at 9 of the 12 crossings. Two crossings were left unchanged as controls and one crossing fell out of the study because it was taken out of service for road works. LLS members carrying out the survey and analysing the data were not informed of the changes made or the identity of the control crossings until the surveys had been completed and the data reported.

For the survey, crossing users were intercepted by the interviewer immediately after they had used the crossing and asked whether they used the crossing regularly (once a week or more). They were then asked to score their experience of using the crossing from 1 (very bad) to 5 (very good). Any comments made were also recorded. For the second round of interviews, after the crossings had been adjusted, regular users were also asked if they had noted any change and what that was.

A total of 36 LLS members and supporters spent 270 hours over 45 sessions interviewing a total of 3947 crossing users.

The results show that wait time reductions of 30 seconds or more resulted in a statistically significant increase in the scores given by users. Wait time reductions of between 10 and 20 seconds did not produce significant changes in experience scores. At some crossings wait time reductions were introduced in the morning or evening peak only and this was reflected in the results (see example below). Within this overall pattern there were some crossings at which substantial wait reductions were not perceived by the users. This appears to be linked to the design of these crossings and the presence of external factors influencing the user experience.

The proportion of regular users noticing any change at a crossing varied from 3 to 50%. Overall, a greater wait time reduction resulted in a greater proportion of users noting some change, but this was not the case at all the crossings. However, the proportion of regular users identifying that the wait time had been reduced was much less clearly linked to the actual change introduced. There was no significant correlation between wait time reduction and the proportion of regular users noting that it had occurred.

Acknowledgement: This study was supported by a grant from UCL Engineering Exchange in association with LSx.

Initial conclusions from the study are:

- The TfL Timing Review Programme is achieving significant measurable improvements in pedestrian experience by optimising the operation of existing infrastructure at low cost and at pace.
- Users perceive a wait time reduction of 30 seconds or more as an improved subjective experience, but rarely note the nature of the change. Wait time reductions of less than 30 seconds will still be of actual benefit in terms of time savings, but may not be sufficient to prompt or sustain behaviour change.
- Wait time is only one of a number of factors influencing user experience, with a wish for more time to cross most frequently cited. Analysis of user comments from the study has also identified features specific to individual crossings that are capable of improvement as well as generating general priorities for improvement.
- The data provided by this study will help prioritise crossings for review and suggest other improvements to meet the needs of pedestrians and support walking journeys.

Example plot of user experience rating

