Transport for London

Legible London scheme evaluation in new areas

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Research conducted by Steer Davies Gleave

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1 Executive Summary

1.1 The implementation of Legible London has significantly improved pedestrians' perceptions and satisfaction. There is also a general consensus that the signs and maps provided help to encourage more walking and make it easier to walk to new places.

1.2 The picture regarding actual changes in behaviour and reductions in journey times are less clear, but these may follow as people become used to the scheme.

Awareness

- Around half of pedestrians are aware of Legible London. This share is higher amongst those who visit more often.
- Amongst those completing mystery shops or accompanied journeys, the majority found and used Legible London.
- At the busiest monoliths surveyed in the pilot, an average of 40 people per hour stopped to use it.

Building confidence

- Generally people were very positive towards all aspects of the scheme, more so amongst those aware of it prior to the survey.
- A majority agreed that the signs gave them the confidence to explore the area on foot.
- In the mystery shops, the number of occurrences of people feeling lost has dropped.

Legibility and clutter

- The PERS surveys provide quantitative data on legibility. Both routes and links were rated much higher in the post-stage than before.
- The scores fell where the routes went outside the area where the signs are implemented.
- Clutter was not seen to be an issue, with the score unchanging. Across the other surveys, clutter was not mentioned as a problem.

User perceptions

- In the on-street and mystery shops attitude statements were positively rated. This included ease of finding your way about, and information to find the shortest route, and giving confidence to explore the area by foot.
- Those aware of Legible London gave significantly higher ratings than those not aware. They also rate the scheme highly in terms of being helpful to them personally and effective.
- In the mystery shops, satisfaction scores were seen to be higher when the respondents had seen and used Legible London through their journey.

- In the mystery shops and accompanied journeys, satisfaction fell when users could not find information when the needed or expected it.

Reduced journey times

- Perceived and actual journey times were very similar between the before and after surveys. There were some minor reductions for those aware of Legible London.

Mode shift

- Survey respondents indicated that they expected that Legible London would increase their walking, though the evidence that this has happened yet is not clear.
- Overall, there was a 5% increase in the volume of pedestrians but this cannot be definitively attributed to Legible London as some of the other evidence is mixed.

Overall assessment

- Pedestrians were very supportive of Legible London, with 87% supporting the rolling out of the scheme across London.

1.3 The following table shows some key indicators across the surveys which illustrate the impact of Legible London.

Table notes:

* Significantly different at 95% confidence level1

Sources: A On-street surveys; B Mystery shopping surveys; C Pedestrian counts; D PERS audits; E Accompanied walks

Note: post-implementation results for on-street surveys are for those aware of Legible London

[1] This means that we can be at 95% certain that the post-implementation attitudes are different from the pre-stage attitudes amongst the whole population

TABLE 1.1 KEY RESULTS OVERVIEW – ALL PILOT AREAS

All pilots	Source	Pre-stage	Post-stage	Change
Awareness of Legible London				
Awareness of Legible London (% aware)	A	-	49	-
Saw Legible London on walk (% of walks)	B	-	93	-
Information sources used (% of pedestrians using information)	A	-	49	-
User feedback	"Once I started to see those signs there was plenty of information and they're really good and clear"			
Change in attitude (confidence & user perception)				
Ease of finding way (% very/ fairly)	A	88	92*	+4
Satisfaction: effective (% very/ fairly)	A	-	93	-
Satisfaction: helpful personally (% very/ fairly)	A	-	73	-
Satisfaction: finding way around area (% very/ quite good)	A	61	83*	+22
Satisfaction: finding shortest route (% very/ quite good)	A	43	67*	+24
Satisfaction: giving confidence to explore (% very/ quite good)	A	54	77*	+23
Perception of journey time (average expected walk journey time, mins /standard deviation)	A	14.50/8.94	14.06/7.49	-0.46mins
Failing to find information (count of occasions)	B	42	10	-32
Definitely felt lost at some point (% of walks)	B	26	9	-17
Would like to see rolled out across London (% agree strongly/ agree)	A	-	87	-
User feedback	"Yes, you'd know where you were going. You wouldn't be scared about getting lost if you knew these were all over the place"			
Change in behaviour				
Encourages me to walk more often (% agree strongly/ agree)	A	-	58	-
Encourages me to walk to places I wouldn't have done before (% agree strongly/ agree)	A	-	60	-
Walked within area (%)	A	87	85	-2
Walked to area (%)	A	43	44	+1
Volume of pedestrians (total pedestrians weekday 7am-7pm, 18 sites surveyed)	C	273,016	287,382	+14,366
Volume of use of signs (average users per sign weekday 7am-7pm, 10 monoliths surveyed)	C	-	229	-
User feedback	"Yes, I will look for my way with Legible London map and walk instead of using public transport, which will help to save money"			
Legibility and clutter				
Link legibility (rated -3 to +3, average of 3 pilot areas)	D	-1.6	2.2	+3.8
Pedestrian signage obstructions (rated -3 to +3, average of 3 pilot areas)	D	2.3	2.3	0
Quality of signs (out of 5)	B	3.4	3.6	+0.2
User feedback	"They are visible, but don't get in the way"			

2 Introduction

About this report

2.1 Transport for London (TfL**)** commissioned Steer Davies Gleave to conduct an evaluation of the pilot study for the Legible London programme.

2.2 This document reports on the post-implementation stage evaluation. The Evaluation Framework developed as part of the pre-stage baseline evaluation has been used in the design of this stage.

2.3 The evaluation conducted is reported in this document and compared to the baseline results produced in 2009.

Legible London

2.4 TfL's Legible London programme aims to provide a user-focused world-class integrated system of wayfinding information to support pedestrian movement in the capital to tackle the key barrier to walking: a lack of clear and consistent on-street information.

2.5 By delivering a single system of wayfinding (including links to existing planning tools, on-street signs and maps) that improves people's understanding of how the capital is laid out, the confidence of London's residents and visitors to walk and explore the city should be significantly improved. A major aim is to get many more people to make journeys on foot rather than use public transport or the private car as a result of the Legible London project.

The Pilot Schemes

2.6 Three distinct areas of London (the 'pilot areas') were selected by TfL to test the different elements of the Legible London project in a variety of environments and scenarios.

2.7 Sixty to eighty signs were installed in the pilot areas during early 2010. Each pilot has a range of street signs and maps, to provide a comprehensive wayfinding system that helps both residents and visitors.

2.8 The pilot schemes are:

- **South Bank and Bankside ("South Bank"):** developed with the Cross River Partnership, the South Bank Employers Group, Better Bankside, Waterloo Quarter Business Improvement District and the London Boroughs of Lambeth and Southwark. This pilot area includes Waterloo Station as a key arrival point for visitors from outside London and interchange for local transport connections, but also includes a wider area alongside the River Thames that includes a number of visitor attractions, such as the London Eye, within walking distance of Waterloo.

- **The Covent Garden and Bloomsbury Clear Zone area ("Clear Zone"):** this includes the Bloomsbury, St Giles and Strand areas, and is being run in partnership with the London Borough of Camden and Westminster City Council. The area covers a number of distinct neighbourhoods to test the Legible London concept of linking the 'villages' of London. People will also be encouraged to walk between the Underground stations in the area, by being shown that their journey could be quicker on foot. It should be noted that at the time of the surveys, signage in the Westminster borough part of the Clear Zone had not been installed.
- **Richmond & Twickenham:** this Outer London pilot tests the system's usability in a range of settings. Developed in partnership with the London Borough of Richmond upon Thames, the site includes a number of dispersed town and village centres, along with green space, leisure walks and Twickenham stadium.

Study Outcomes

2.9 The key purpose of the evaluation is to determine the effectiveness of the Legible London programme as a means to delivering its stated objectives and providing value for money. This will be achieved by assessing the impact of the scheme in meeting these objectives through the course of the evaluation.

2.10 In undertaking this work, Steer Davies Gleave has strived to ensure that the work undertaken is:

- **objective:** using quantified techniques that demonstrate causality and are statistically significant;
- **clear:** indicating the demonstrable effects for Londoners and visitors to London that are delivered as a result of implementing the pilot;
- **robust:** indicating the degree of uncertainty inherent in the assumptions made and the techniques used in the evaluation;
- **transferable:** capable of extrapolation so that the effects of rolling out the programme across London may be predicted; and
- **informative:** indicating precisely what the pilot schemes teach about the system products, presence and promotion, and highlighting any further development work that may be required before Legible London is rolled out across the capital.

2.11 On the basis of the programme goals and objectives for Legible London that were identified in the development of the Evaluation Framework, the study seeks to address the intended primary effects of the pilots, which include:

- **Building confidence:** indications that Legible London is making people confident because the information they receive is accurate, available, usable and reliable in order to encourage the 'walk' decision;
- **Legibility and clutter:** the extent to which people perceive that Legible London helps make the pedestrian environment free from clutter and easier to navigate, based on an examination of the difference between levels of legibility

and obstruction before and after implementation of the pilots. The Pedestrian Environment Review System (PERS) provides a way to establish this measurement on a comparable basis. This will also provide a basis to monetise the benefits achieved, when combined with the benefit values of improvements to the walking environment routinely used by TfL to evaluate such schemes, as developed by Steer Davies Gleave[2];

- **User perceptions:** to be effective, users must perceive Legible London as a positive addition to the transport system. They should also associate the system with quality and commitment, providing more positive perceptions of TfL overall and adding to the value of TfL. Therefore, we need to better understand what factors have influenced their current perception of wayfinding and signage, and how the implementation of Legible London has affected the brand value of TfL;
- **Reduced journey times:** the Legible London system should provide users with information at the right time to enable them to choose the shortest route to their destination, and therefore help reduce journey times. Thus, it will be important to understand the difference that the pilots have made in this respect. This will require not just establishing how many users take the shortest route (and therefore have the shortest journey time), but also how many take a longer route. Other factors influencing route choice will also need to be examined to establish how Legible London has made a difference by providing users with information that enables them to take the shortest route if they wish to select it. The interview surveys will also help establish the causality between the Legible London pilots and reported shorter journey times in the 'after' surveys; and
- **Mode shift:** indications that at the point where people make mode decisions, they choose walking where they may previously have chosen to drive or use public transport. The evaluation will seek to identify, on the basis of revealed preferences in the after survey, where the scheme has changed walking behaviour, including where equivalent journeys were previously undertaken by an alternative mode. Where people have identified a change in behaviour this can be analysed alongside the reported change in perceptions, to help identify the key drivers of any behavioural change.
- **Awareness:** the level of use and awareness of the scheme will provide a measure of the proportions of people the above measures affect. This is likely to vary by type of visitor, for example, more frequent visitors are more likely to be aware.

Structure of the Report

2.12 The remainder of the report is organised as follows:

[2] Transport for London (2008), Business Case Development Manual, Investment Programme Management Office, May 2008, Appendix E, Table E4.10

- Context for evaluation: an outline of the objectives of the scheme and how the evaluation fits this;
- Survey programme overview: details of the methodologies used and the timings of fieldwork;
- Overall findings: this section provides results across the three pilots, including a summary of the findings from the accompanied journeys;
- Survey detail for each pilot area: each pilot is taken in turn, including a description of the surveys conducted, and a detailed analysis of results, with location specific findings.

3 Context for Evaluation

Vision and Mission Statement

3.1 The main context for the evaluation framework of the Legible London programme are the scheme objectives[3] and desired outcomes for the evaluation study[4] identified by TfL.

3.2 The vision for Legible London is that the Legible London programme should deliver:

"World class wayfinding for a world class city"

3.3 The associated mission statement for the Legible London programme is that it should deliver:

"A user-focused system of pedestrian wayfinding information, seamlessly integrated into both borough and TfL customer information (including London Underground, London Rail and London Buses and via other web-based and paper communications channels) and presented where necessary on a consistent suite of on-street signage across London, through a phased programme".

Goals and Objectives

3.4 To deliver this vision and mission, the goals and objectives that have been set for the scheme are set out in Figure 3.1. The Legible London scheme as a whole also should be seen in the broader strategic context of the aim of increasing the number of journeys made on foot in London by more than one million a day in line with the target set in the present TfL Business Plan[5].

3.5 Area specific objectives have also been developed which focus on specific sub-objectives that are most relevant for each pilot area.

3.6 In support of the goals and objectives below, TfL also identified a number of expected impacts that Legible London aimed to achieve. These include:

- **confidence:** qualitative assessment of how people perceive the accuracy, availability, usefulness and reliability of wayfinding information.
- **legibility and clutter:** objective measurement of levels of legibility and obstruction.
- **user perceptions:** gauging reactions to the Legible London system and impact on perceptions of the brand value of TfL.

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3 Applied Information Group (2008), Legible London: Pilot Objectives and Focus, Draft 1 (v5) 2, Transport for London, Dec 2008.

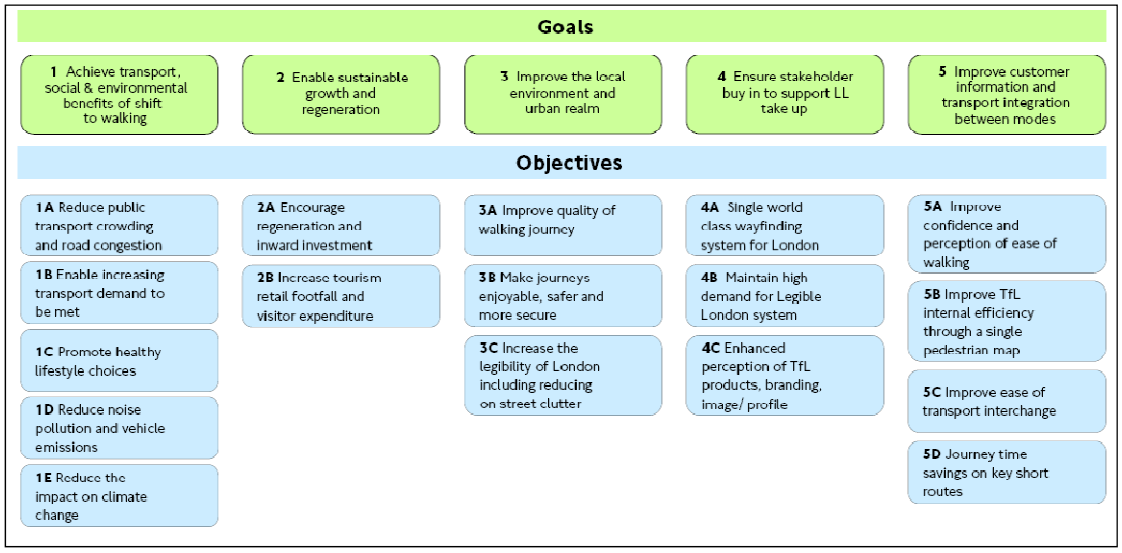
4 Transport for London (2009), Legible London Pilot Evaluation Study Brief.

5 Transport for London (2008), Business Plan 2009/10- 2017/18, p.52.

- **reduced journey times:** the extent to which people can choose the shortest route to their destination and reduce journey times.
- **mode shift:** tangible changes in decision-making behaviours and the absolute numbers of pedestrians, together with monetisation of the economic and health benefits of such changes.

3.7 In addition, the level of **awareness** (the level of use and awareness of the scheme by pedestrians in the pilot areas) will also be measured.

FIGURE 3.1 GOALS AND OBJECTIVES OF LEGIBLE LONDON



Evaluation Framework

3.8 The Evaluation Framework was formulated during the baseline (pre-implementation) stage. The context for this framework is explained in the final baseline report[6].

3.9 This framework is the basis for evaluation, linking the survey methods with the objectives. This is shown in Table 3.1.

3.10 The framework was used to develop the methodology for this post-stage. However, the focus for evaluation has moved slightly from being business case focused. This has allowed for some more qualitative elements to be brought in to look at certain topics in more detail.

The detailed evaluation framework, including all objectives and related sub-objectives, is presented in an Appendix.

6 Steer Davies Gleave (2009), Legible London: Pilot evaluation Baseline surveys – final report, Transport for London

TABLE 3.1 LEGIBLE LONDON EVALUATION – FIT WITH OBJECTIVES

	AWARENESS OF SCHEME	CHANGE IN ATTITUDES (LL Objectives)	CHANGE IN BEHAVIOUR (LL Objectives)	CHANGE IN OUTCOMES (Wider Objectives)
Link to Objectives	Links to Goal 3 – Improve Urban Realm / Environment. **Infrastructure** - on-street maps - signage - reduction in clutter (3C) **Other LL measures** - customer info and integration (Goal 5) - single pedestrian map (5B)	**Improved user perception of walking** -quality (3A) - enjoyable, safe, secure (3B) - legibility (3C) - confidence and perceived ease (5A) - ease of interchange (5C) **Extended awareness** - of local area - of specific sites **Improved user perception of TfL** - branding / image (4C)	**Modal shift (Goal 1)** - increase in walking - reduction in other modes. **Journey Time Savings - Walk (5D)** - people making faster journeys **Ease of Interchange (5C)** - people making better / faster interchange **Extended Use** - local area / sites	**Mode shift related (Goal 1)** - reduced crowding / congestion (1A) - enable increasing demand (1B) - healthy lifestyles (1C) - reduced noise / emissions (1D) - climate change (1E) **Journey Time / Ease of Interchange related** - economic / welfare benefits of reduced travel time. **Extended Activity Related** (Goal 2) - regeneration (2A) - tourism & retail footfall / spend (2B)
How measured?	PERS – street audits provide measure of 'quality' before & after. On-street awareness and perceptions of LL information.	On-street interviews – look for significant change in perceptions and satisfaction.	On-street interviews – look for differences between 'before' and 'after' behaviour and stated behaviour change. Mystery shopper – easier / faster journeys.	Not covered in present evaluation. Part of wider business case based on before & after evaluation findings.
Output of Evaluation	Change in PERS 'score' for selected streets.	Change in perception of pedestrian environment. Relate back to enhanced urban realm/ legibility.	Change in behaviour – attributable to improved perceptions.	Impact on wider objectives – monetised where possible.

4 Survey Programme Overview

Methodology

4.1 This section provides an overview of the surveys undertaken to evaluate the pilot areas, in terms of their purpose and scope. The overall results and detailed survey outcomes for each pilot area are covered in the following chapters.

4.2 The surveys that were undertaken during July and August 2009 to establish the baseline were:

- On-street interview surveys of users;
- In-home surveys of users and potential users;
- Pedestrian counts held concurrently with the on-street interview surveys;
- "Mystery shopper" surveys; and
- Pedestrian Environment Review System (PERS) audits.

4.3 The post-stage surveys were a repeat of these, in order to provide comparison data. However, a few changes were made to provide additional qualitative and diagnostic feedback:

- In-home surveys were not conducted
- Sample sizes for on-street interviews and mystery shops were reduced
- A discussion group amongst mystery shoppers was added
- Additional observational counts were conducted
- Accompanied journeys were conducted

4.4 The in-home surveys were not conducted at this stage as they were only conducted in Richmond and Twickenham in the pre-stage, and were not felt to contribute sufficient additional information on top of the on-street surveys, and other methodologies.

4.5 The reduction in sample size was due to budgetary constraints, although the samples were only reduced to levels which were still felt to be robust.

4.6 Additional research methods were employed in the form of observations and accompanied journeys. These allowed for the collection of data about the usage of the scheme and, in the case of the accompanied journeys, for some issues to be discussed in more detail.

4.7 The main reasons for the changes in methodology were:

- The focus for the evaluation was turned from the requirements of a business case towards a broader requirement to understand the impact and use the scheme, allowing for more qualitative approaches to be used;
- A number of specific research questions were provided by the London Development Agency (LDA) and had to be taken into account in the research

methodology. Some of these were more qualitative issues. These are assessed later in this chapter. Additional questions could not be included in the on-street interviews due to survey length constraints

4.8 Each survey method is discussed in turn in the following paragraphs.

Pedestrian Counts

4.9 Pedestrian counts were undertaken concurrently with the on-street interview surveys, including a weekday and weekend count at each location. The same locations were used in the pre- and post-stages.

TABLE 4.1 PEDESTRIAN COUNTS SAMPLING PLAN

Number of sampling points		Pre-stage 2nd- 5th July 2009		Post-stage 1st – 4th July 2010	
		weekday	**weekend**	**weekday**	**weekend**
Clear Zone	British Museum	1	1	1	1
	High Holborn	1	1	1	1
	Long Acre	1	1	1	1
	Monmouth St	1	1	1	1
	Kingsway	1	1	1	1
	Bloomsbury St	1	1	1	1
	Endell St	1	1	1	1
Richmond/ Twickenham	Richmond Station	1	1	1	1
	George St/ Hill St	1	1	1	1
	Twickenham Station	1	1	1	1
	York St	1	1	1	1
South Bank	Tate Modern	1	1	1	1
	Southwark St	1	1	1	1
	Belvedere Road	1	1	1	1
	Sutton Walk	1	1	1	1
	Cornwall Rd	1	1	1	1
	The Cut	1	1	1	1
	Blackfriars Rd	1	1	1	1
	TOTAL	18	18	18	18

4.10 The counts were undertaken between 07:00 - 19:00 at each location.

4.11 The pedestrian counts were undertaken essentially to serve two purposes, namely:

- to gain an understanding of pedestrian volumes on particular routes; and
- to help understand where Legible London may have had an impact in increasing pedestrian volumes on particular links and routes. This is relevant to, for example, specific objectives related to increasing awareness and usage of retail or tourist areas. Note however, that the volume of pedestrians will be affected by many other factors, so an increase in volumes cannot be attributed directly to Legible London.

4.12 The pedestrian count sites were also designed to correspond with those areas where the PERS audits were undertaken.

4.13 In addition, a number of counts were commissioned to observe directly the numbers of people using the Legible London maps ('monoliths'). These were also conducted between 7am and 7pm, on 1st and 2nd July 2010, at the same time as the main pedestrian counts.

4.14 This allows for a comparison of users versus all pedestrians at some of the count points.

TABLE 4.2 OBSERVATION COUNTS SAMPLING PLAN

		weekday
Clear Zone	High Holborn	1
	Russell Square	1
Richmond/ Twickenham	Richmond town centre	1
	Twickenham town centre	1
South Bank	Waterloo	1
	Southwark Station	1
	TOTAL	6

PERS Audits

4.15 Pedestrian Environment Review System (PERS) audits were undertaken by TRL Ltd. In each of the Legible London pilot areas. The detailed outcomes of these are reported for each stage and for each pilot separately[7].

4.16 The PERS audits were intended to describe the levels of pedestrian legibility and wayfinding in the Legible London pilot areas, examining specific parameters within PERS that affect legibility, wayfinding and street clutter. The audits were undertaken:

- Pre-stage: between 23rd June and 9th July 2009.
- Post-stage: between 22nd June and 8th July 2010.

4.17 The PERS review was based upon the principles that:

- the quality of the pedestrian environment may be evaluated according to the degree to which it meets pedestrians' needs; and
- in evaluating the degree to which pedestrians' needs are met by the environment, the objective should be to satisfy as many people as possible, with

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7 Pre-stage: TRL Ltd. (2009), PERS Legibility Audit: 'Before' study - Legible London Pilot Sites, 3 vols. (South Bank (CPR 466); Clear Zone (CPR 463); Richmond & Twickenham (CPR 467)), Transport for London, August 2009.

Post-stage: TRL Ltd. (2010), PERS Legibility Audit: 'After' study – Legible London Pilot Sites, 3 vols. (South Bank (CPR 839); Clear Zone (CPR 838); Richmond & Twickenham (CPR 840)), Transport for London, August 2010

the 'standard' pedestrian being considered to be towards the vulnerable end of the spectrum.

4.18 PERS recognises the needs of pedestrians in both undertaking a journey on foot and as people using spaces in the public realm for leisure and non-transport based activities. The PERS audit requires the auditor to consider the extent to which the environment under consideration provides easy, convenient and pleasant conditions for all users.

4.19 The PERS Audits specifically reviewed the parameters identified in the figure below.

FIGURE 4.1 PERS REVIEW PARAMETERS

Link review	Public transport waiting area review
Obstructions	Information to the waiting area
Pedestrian Signage Obstructions	Information at the waiting area
Permeability	
Legibility	
Lighting	
Effective width	
Signage legibility for disabled people	
Public Space Review	**Interchange Space review**
Moving in the space	Moving between modes
Interpreting the space	Identifying where to go
Personal safety	Personal safety
Feeling comfortable	Feeling comfortable
Sense of Place	Quality of the environment
Opportunity for activity	Maintenance
Link and Crossing Audits	Link Audits
Route Audits	Route Audits
Public Transport Waiting Area Audits	Public Transport Waiting Area Audits

Route review
Directness
Permeability
Road safety
Personal security
Legibility
Rest points
Quality of the environment
Link Audits

4.20 For each part of the routes tested a score of between -3 and +3 was be awarded under each parameter. This forms the basis for providing an overall assessment of the quality of the streetscape.

4.21 The coverage of the PERS audit in each of the Legible London pilot areas was:

- in the **South Bank** area 22 links, 10 routes, 20 public transport waiting areas and 3 public spaces;
- in the **Clear Zone** area, in the before stage 22 links, 9 routes, 4 public transport waiting areas, 2 public spaces and 3 interchanges were assessed. However, due

to delays in installation in the City of Westminster part of the pilot area, the area for study was reduced to look at only that affected by the signage and compared to this same area from the pre-stage. Therefore 12 links, 7 routes, 4 public transport waiting areas, 1 public spaces and 1 interchange were assessed; and

- in the **Richmond & Twickenham** area 22 links, 10 routes, 17 public transport waiting areas, 2 public spaces and 2 interchanges.

4.22 The PERS audit provides a baseline assessment of existing conditions on pedestrian routes that are identified in the pilot areas. Some clutter has been removed as part of the installation process, the PERS analysis therefore distinguishes between general clutter and signage related clutter.

On-street User Interview Surveys

4.23 1008 on-street user interview surveys were undertaken by Synovate between 28th June and 20th July 2010. Interviews were undertaken in each of the central London pilot areas, with interviews undertaken at three sampling points within each area.

4.24 This was a repeat of the surveys conducted in 2009, although there were a few minor changes:

- The sample size at each location was reduced to 100 interviews;
- The Covent Garden site was not surveyed this year, as the scheme had not been installed in this location at the time of fieldwork;
- There were some additions to the questionnaire, which are described below in Table 4.4.

4.25 The following table shows the number of planned surveys at each location in both the pre- and post-stages.

TABLE 4.3 ON-STREET SURVEY SAMPLING PLAN

		Pre-stage 26th June - 17th July 2009	Post-stage 28th June – 20th July 2010
Clear Zone	Covent garden	250	-
	British Museum	250	100
	St Giles	250	100
Richmond/ Twickenham	Richmond Station	200	100
	Richmond town centre	200	100
	Twickenham station	200	100
	Twickenham town centre	200	100
South Bank	Tate Modern	250	100
	Waterloo	250	100
	Belvedere Road/ Upper Ground	250	100
	TOTAL	2300	900

4.26 The detailed findings of each of the surveys have been reported after each stage of research[8].

4.27 The on-street survey was designed to provide a measure of attitudes and behaviour with regards to walking before and after the implementation of Legible London. The surveys were undertaken so that a representative sample of passing pedestrians would be interviewed, with respondents selected at random from within the pre-selected sampling points.

4.28 The interview itself was designed to last approximately 7 minutes, and the questions asked were consistent across each pilot area although with local geographical places of interest where relevant (question 8).

4.29 In addition to standard questions on age, gender, ethnicity, disability, employment status and place of residence, the questions asked in each case are indicated in Table 4.4 following:

[8] Pre-stage: Synovate Ltd. (2009), Legible London Pilot Evaluation: Report of Findings, 3 vols. (South Bank; Clear Zone; Richmond & Twickenham), Transport for London.

Post-stage: Synovate Ltd. (2010), Legible London Pilot Evaluation: Report of Findings, 3 vols. (South Bank; Clear Zone; Richmond & Twickenham), Transport for London.

TABLE 4.4 QUESTIONS INCLUDED IN THE ON-STREET INTERVIEWS

No.	Question	Stages
1	Which of the following best describes where you are heading at the moment?	Pre- and post-stages
2	Which modes of transport have you used to get into this area today?	Pre- and post-stages
3	Which modes of transport have you used within this area today?	Pre- and post-stages
4	Typically, how often do you come to this area?	Pre- and post-stages
5	Typically, how often do you take a trip in this area which involves walking all the way?	Pre- and post-stages
6	Generally, how pleasant do you find it walking in this area?	Removed in post-stage: The proportion saying 'pleasant' in the pre-stage was very high, so it was therefore not expected to be a good measure of change for the post-stage
7	How easy do you find it to find your way around this area?	Pre- and post-stages
8	Would you know how to find your way by foot from here to this local landmark?	Pre- and post-stages
9	Roughly how long do you think it would take you to walk there from here?	Pre- and post-stages
New10a	What sources of information did you use to find your way a) From the station (if entered area by rail or Underground)? b) Around the area today?	Added for post-stage: to measure unprompted usage of Legible London amongst other information, including at interchange
10	How would you rate the signage locally in terms of: a) Helping you find your way around the area; b) Helping you find the shortest route to destinations nearby; and c) Giving you the confidence to explore the area by foot	Pre- and post-stages
New17	Are you aware of this new pedestrian information scheme recently introduced in this area? (Prompted with image)	Added for post-stage: to measure awareness of Legible London

New18	How helpful has this new pedestrian information scheme been to you personally in helping you find your way around this area?	Added for post-stage: to measure usefulness of Legible London
New19	Generally, how effective do you think the new pedestrian information scheme is in enabling people to find their way about this area?	Added for post-stage: to measure effectiveness of Legible London
New20	To what extent do you agree or disagree with the following statements: a) The signs and maps in this area encourage me to walk more often b) The signs and maps in this area encourage me to walk to place I wouldn't have done before c) The signs and maps in this area make it much easier to find your way from a rail or Tube station d) The signs and maps in this area make it easier to walk to places I haven't walked to before e) I would like to see more of these types of signs and maps in other parts of London	Added for post-stage: to measure how encouraging Legible London is, how it gives confidence to explore, and improvements to interchange

4.30 The consistency in the questions between the 'before' and 'after' interviews will provide an understanding of whether, and how, people have responded to the Legible London pilot. A key aim of the evaluation is to identify where these changes are 'statistically significant', whereby changes can be attributed to the Legible London scheme. How the questions asked relate to the goals is indicated in Table 4.5.

TABLE 4.5 USER QUESTIONNAIRE – LINK TO LEGIBLE LONDON GOALS

Objective	Key Measure	Related Questions
GOAL 1 - Achieve transport, social and environmental benefits of shift to walking	Evidence of modal shift to walking	User interviews provide evidence on change in perception, which could drive change in behaviour User perceptions from Qu.7, 8, 10a & c
GOAL 2 - Enable sustainable growth and regeneration	Increased awareness of particular areas / attractions among respondents	Qu. 10c, 20a,b,d – confidence to explore We get improved perception / willingness to explore (in general, not location specific)
GOAL 3 - Improve the local environment and urban realm	Improvement in user perceptions from user interview surveys	User perception Qu. 7, 8, 10a & c, 18, 19
GOAL 4 - Ensure stakeholder buy-in to support Legible London take up	Improvement in user perceptions	As above plus Q20e – interest in expansion of scheme, & Q17 – Awareness of scheme
GOAL 5 - Improve customer information and transport integration between modes (incl. ability to find shortest routes)	Journey times for key routes	Q9 – perceived journey time Q10a – signage to landmark Q10b – shortest route Q10c – know the route (more confidence) Qnew10a – information used on survey day inc. from interchange

Mystery Shopper Surveys

4.31 "Mystery shopper" surveys were used to assess the ease of navigating around each of the pilot areas. The mystery shoppers were briefed to undertake walks between specified points and to record the ease of navigation, and rate the quality of any wayfinding information they used. The mystery shoppers were unfamiliar with the area they walked in.

4.32 The intention of this was to provide an understanding of how people use and interpret wayfinding facilities in terms of:

- overall journey time taken between specific points;
- understanding of specific areas where people encounter 'wayfinding' issues e.g. at junctions, interchanges etc.;
- Comparing the pre- and post-stage walks will provide insights into how the walking experience has changed due to Legible London.

TABLE 4.6 MYSTERY SHOPPING FIELDWORK SCHEDULE

Number of mystery shopping walks			Pre-stage 9th - 12th July 2009		Post-stage 24th June - 4th July 2010	
			weekday	weekend	weekday	weekend
Clear Zone	B	Holborn – Leicester Sq	3	2	2	2
	D	Oxford Street – St Giles	3	2	2	2
	D	St Giles – Oxford St	3	2	2	1
	A	Strand – British Museum	3	2	2	2
	C	Tottenham Ct Rd – National	3	2	2	2
Richmond/ Twickenham	B	Ellesmere Rd – Richmond station	3	2	2	2
	A	Richmond Green – Richmond Park	3	2	2	2
	A	Beaconsfield Road – Church St	3	2	2	2
	B	Whitton Road – Marble Hill House	3	2	2	2
South Bank	C	Oxo tower – Lower Marsh	3	2	2	2
	A	Southwark – London Eye	3	2	2	2
	B	Tate Modern – Young Vic	3	2	2	2
	D	Waterloo Station – Houses of Parliament	3	2	2	1
		TOTAL	39	26	26	24

4.33 The mystery shoppers were asked to walk between the two points specified using only the wayfinding information available en-route.

4.34 The surveyors were specifically instructed that:

- they could use any information that was available along the route walked, including on adjacent roads if nothing was available on the road being used;
- this information could include any maps that can be found at bus stops; and
- they could not use an A-Z (or similar) map, or a mobile phone. They were also instructed to avoid asking for help, except as a last resort.

4.35 During the walk, a form was used by surveyors to record all relevant events during the walk between the start and end points. This included identifying both when and where information is actually used, and where it was sought but not available. The form also included a question to track the Mystery Shopper's level of satisfaction during the walk.

4.36 When the walk was completed, the surveyors then completed an overall assessment questionnaire and marked the route taken on a map provided, with any key points also identified (e.g. where particularly good or bad information was found). In the post-stage, some additional questions specifically about Legible London were added. These were provided on a separate sheet which was not seen until after the walk, so as not to alert them to the existence of Legible London.

4.37 The questionnaire used by the mystery shoppers can be seen in an Appendix.

4.38 An additional part of the research this year was a discussion group with a small number of the mystery shoppers. The aim of this was to discuss their experience in more detail and to gain insight into some of the specific design issues which required investigation. These mystery shoppers had completed walks covering all three pilot areas.

Accompanied journeys

4.39 A new segment of the research in the post-stage was accompanied journeys. This was to record actual behaviour of users walking a route in the pilot areas, and provide an opportunity to explore issues in more detail, particularly regarding how the Legible London maps and signs are actually used.

4.40 Twenty-four walks were conducted with recruited members of the public. These respondents were selected to provide a range of demographics, and also differing levels of knowledge of the pilot areas, in order to provide contrasting journey outcomes.

4.41 The routes followed were the same as those used for the mystery shopping to provide consistency across the methodologies. In addition, the journey progress was measured in the same way as in the mystery shop (see questionnaires in appendices) with the recording of the route taken, information sources used and satisfaction.

4.42 The respondent was met at a designated point by an interviewer, and at this stage the respondent was told of the destination they must reach. The two then walked together, with no direction from the interviewer, and the respondent being asked questions during the walk.

TABLE 4.7 ACCOMPANIED JOURNEYS FIELDWORK SCHEDULE

Number of journeys			Post-stage 13th – 26th July
Clear Zone	B	Holborn – Leicester Sq	2
	D	Oxford Street – St Giles	1
	D	St Giles – Oxford St	1
	A	Strand – British Museum	2
	C	Tottenham Court Road – National Theatre	2
Richmond/ Twickenham	B	Ellesmere Rd – Richmond station	2
	A	Richmond Green – Richmond Park	2
	A	Beaconsfield Road – Church St	2
	B	Whitton Road – Marble Hill House	2
South Bank	C	Oxo tower – Lower Marsh	2
	A	Southwark – London Eye	2
	B	Tate Modern – Young Vic	2
	D	Waterloo Station – Houses of Parliament	2
		TOTAL	24

5 Overall findings

5.1 This section outlines some of the key findings across the three pilot areas, before the individual pilots are analysed in more detail in the following chapters.

Key findings

5.2 Around half of pedestrians in the pilot areas are aware of Legible London. Those who visit the areas more frequently are more likely to be aware.

5.3 Attitudes towards the scheme are very positive. The scheme is rated highly across the surveys in terms of helpfulness, effectiveness and in terms of its impact on confidence.

5.4 People also rate the scheme highly in terms of its ability to impact positively on their ability to find their way about and find a destination.

5.5 The measure used in the on-street and mystery shopping to test this ability was journey times, which were not seen to change between the survey waves.

5.6 Positively, the PERS surveys provided high scores, much increased from the pre-stage, for legibility of links and routes. It was notable that where signs had not been put in place, these scores did not change as much, but benefited only from being close to other monoliths.

5.7 There is little evidence to support changes in mode use at this stage.

Pedestrian counts

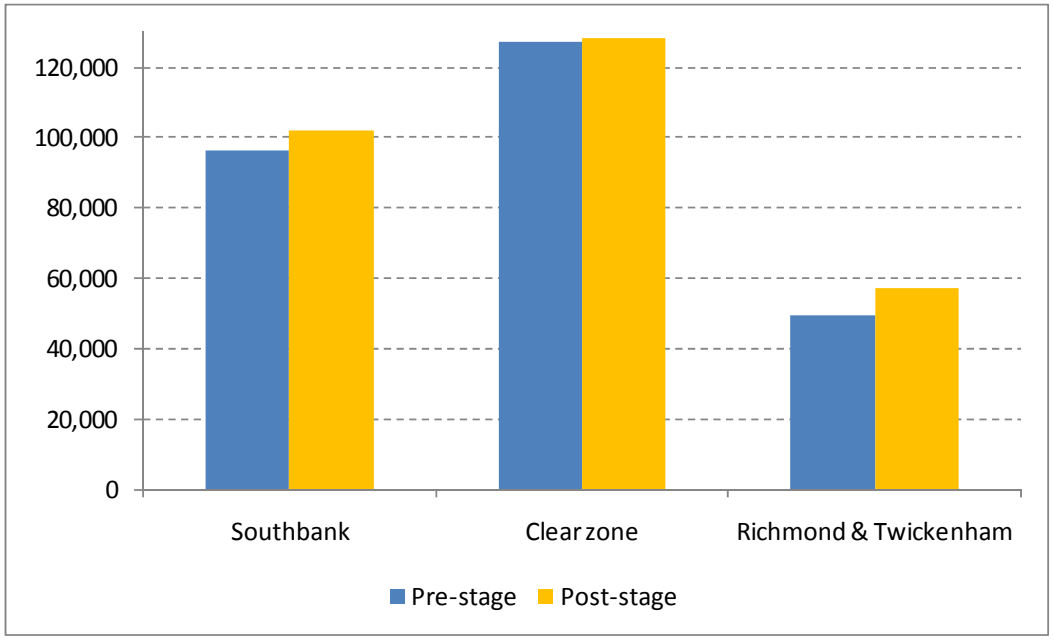
5.8 The pedestrian counts were undertaken in order to assess the impact of Legible London on the amount of walking in the pilot areas. In total, on a weekday across eighteen count sites, 287,000 pedestrians were counted in the post-stage. At the same sites on a weekend day, 212,000 pedestrians were counted.

5.9 These counts provide an uplift from the pre-stage on equivalent dates in 2009. In total, a 5% increase was seen in the weekday count and 7% at the weekend.

5.10 There is, however, some variation by pilot area. The following two charts show the total volume of pedestrians counted across all the count sites and the whole day for each pilot area. This total volume is shown for the pre- and post-stages in order to compare the volume of pedestrians.

5.11 In all three pilot areas, the volume of pedestrians has increased compared to the pre-stage. The largest increase was in Richmond & Twickenham at around 7,300 additional people on a weekday.

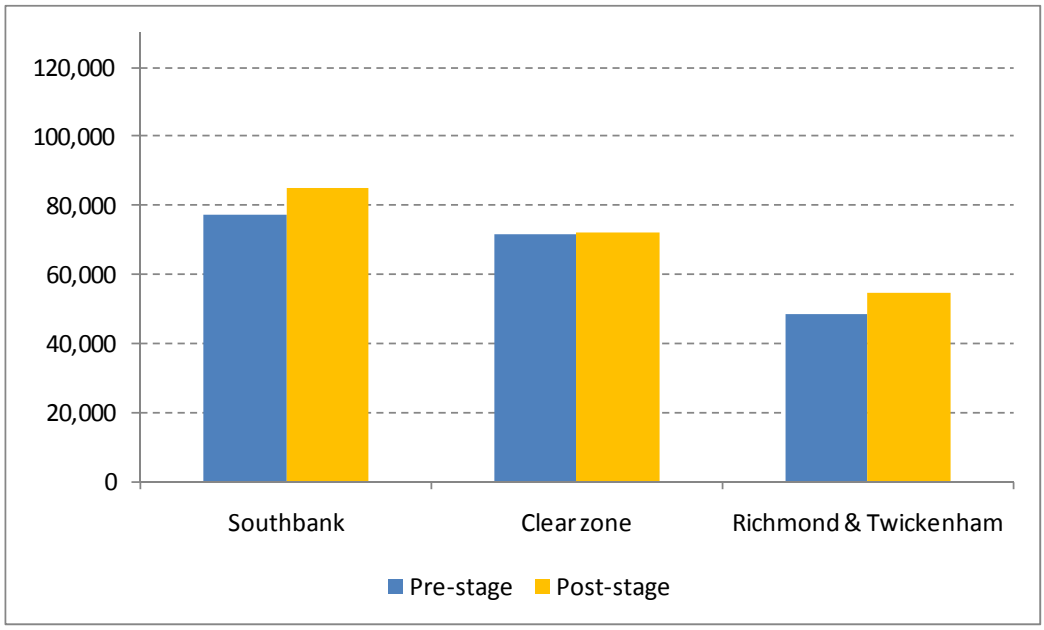
FIGURE 5.1 WEEKDAY PEDESTRIAN COUNTS - DAILY COUNT BY PILOT AREA - COMPARISON OF PRE- & POST-STAGES



5.12 The weekend counts showed a very similar picture, with increases seen in all three pilots.

5.13 On both weekdays and weekends, the Clear Zone volume was very similar in both stages (a difference of less than 1000).

FIGURE 5.2 WEEKEND PEDESTRIAN COUNTS - DAILY COUNT BY PILOT AREA - COMPARISON OF PRE- & POST-STAGES



5.14 These are positive movements in pedestrian flows, although it is difficult to attribute these increases directly to Legible London as other factors may also be the cause.

5.15 Alongside these pedestrian counts, a smaller number of observational counts were conducted. In total, 2,290 people were observed to have used one of the ten monoliths during the weekday observation period.

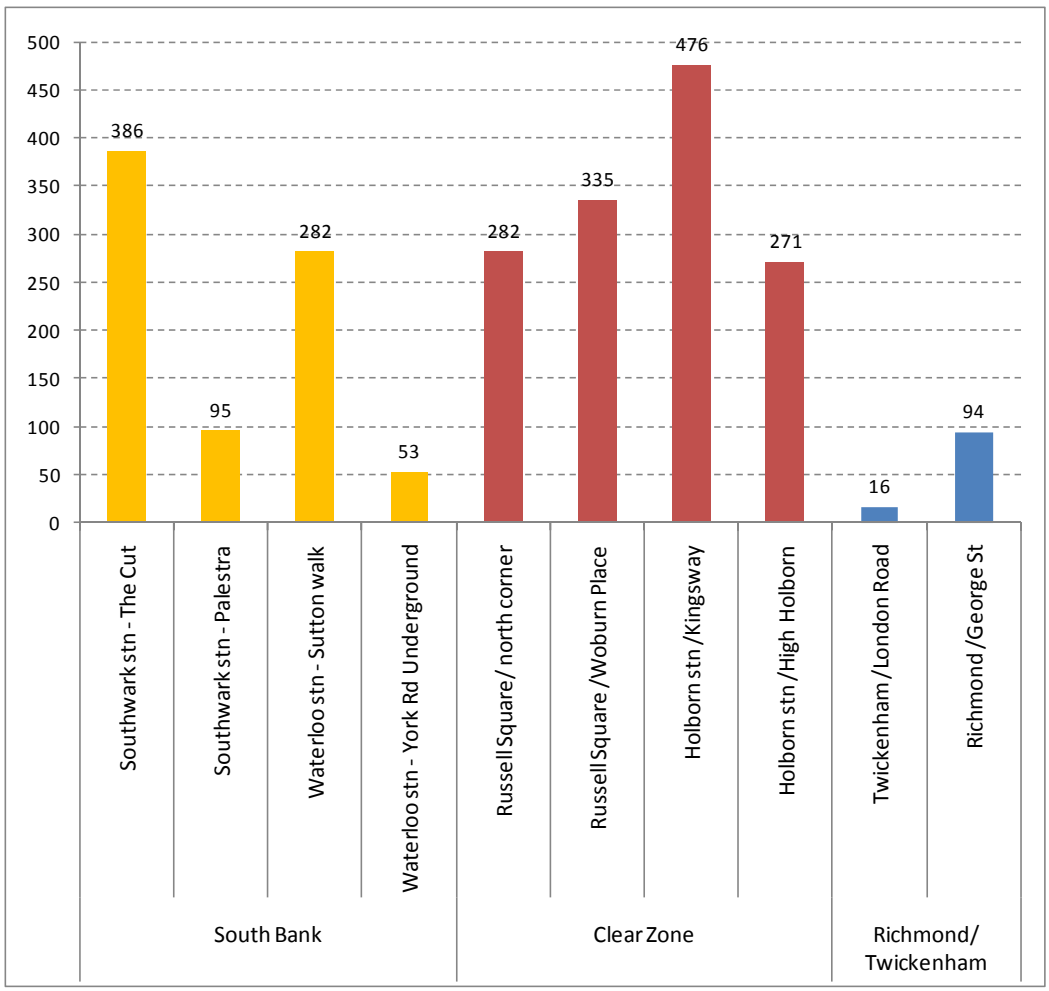
5.16 Using this total counted figure it is possible to work out that the average rate of users per hour at each monolith is 19.

5.17 Comparing the three pilot areas shows that the monoliths in the Clear Zone had a higher average number of users per hour (over 28 at each monolith), while the South Bank was closer to the average at 17, and Richmond & Twickenham saw fewer users at a rate of 4.6 users per hour per monolith.

5.18 The total volumes of users seen across the day at each of the monitored monoliths are shown in the following chart. This shows that between and within the pilots there are relatively large differences. This is particularly notable in the South Bank where two of the monoliths have much lower volumes of users than the other two.

5.19 Two of the monoliths directly outside stations (Holborn Kingsway and Southwark the Cut) have relatively high counts of users compared to others in their pilot, suggesting these are good locations for Legible London to be implemented.

FIGURE 5.3 TOTAL OBSERVED USERS OF SELECTED MONOLITHS (WEEKDAY, 7AM-7PM)



5.20 The length of time users stopped at the monoliths was also recorded (in one of three bands: less than 10 seconds, 10 seconds to 1 minute, and longer). Three fifths of users stopped for between 10 seconds and 1 minute, with around a fifth spending a shorter time and the remaining fifth using the monolith for more than a minute.

5.21 The peak times of day for usage are between 11-12am, and 2-4pm. These off-peak times reflect the larger number of visitors as opposed to residents or local employees using the monoliths, as seen in the on-street surveys.

5.22 It should be noted that the surveyed monoliths are not necessarily a representative sample of all monoliths in the pilots, and that due to this it is not possible to extrapolate the findings to represent all signage locations.

PERS

5.23 Legible London was seen to have a positive impact on legibility and wayfinding in all the pilot areas. Signage was consistent, high quality and was well used by pedestrians.

FIGURE 5.4 PEDESTRIANS OBSERVED USING LEGIBLE LONDON IN CLEAR ZONE

5.24 In the pre-stage, information provision was inconsistent across and within the pilots.

5.25 In all the pilot locations, the provision of Legible London caused increases in scores for legibility of links and routes. Those links and routes where signage was not available did not receive the same uplift in score, but increased slightly due to the availability of information close by in the area.

5.26 Information at bus stops also saw a greater increase for those stops where Legible London maps had been installed, compared to those where it had not.

5.27 The following chart compares the scores for each of the variables relating to the legibility of the area, showing the pre- and post-stage results.

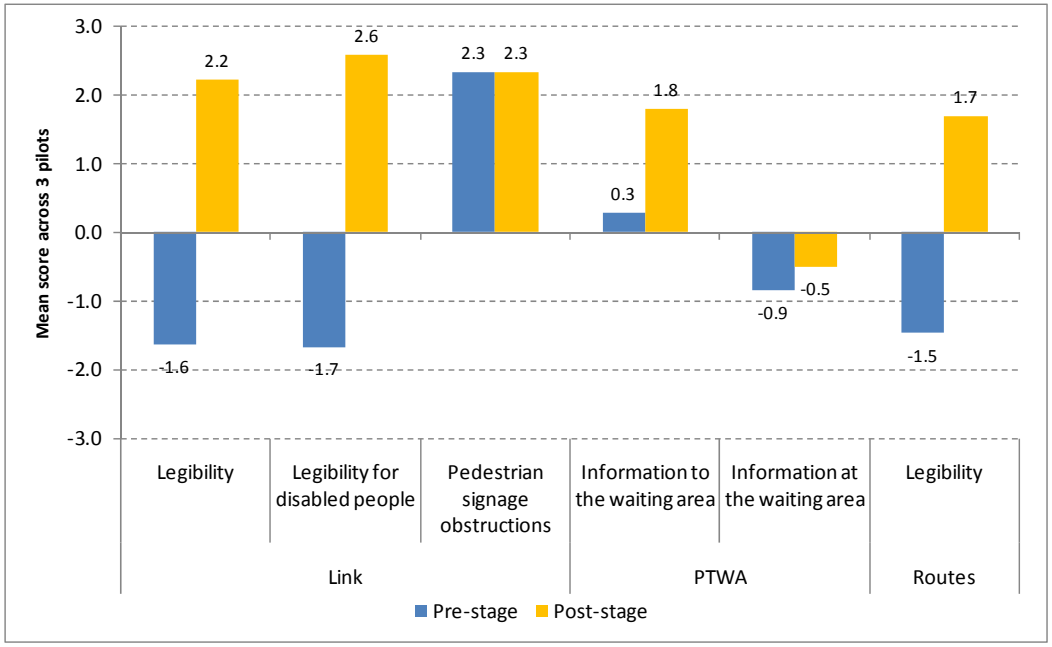
5.28 All aspects saw an increase in score from the pre-stage, apart from 'pedestrian signage obstructions' which remained constant.

5.29 The greatest increase was seen for legibility for disabled people (+4.3), followed by legibility of links (+3.9). Legibility for disabled people was also the highest scoring overall, this is particularly positive as it was the lowest scoring in the pre-stage.

5.30 The score for pedestrian signage obstructions has not changed, although was positive in the pre-stage, showing that the existing signage was not problematic, and that the replacement data.

5.31 The only variable to remain with a negative score in the post-stage was information at the waiting area. This is due to information at many of the bus stops not being upgraded to Legible London maps at the time of the audits.

FIGURE 5.5 PERS AUDIT MEAN SCORES – PRE-STAGE AND POST-STAGE – ALL PILOTS (MEAN)



Scores from -3 to +3

5.32 Scores for links generally increased even if monoliths were not available on the link being surveyed, due to information being available on connecting/other links close by.

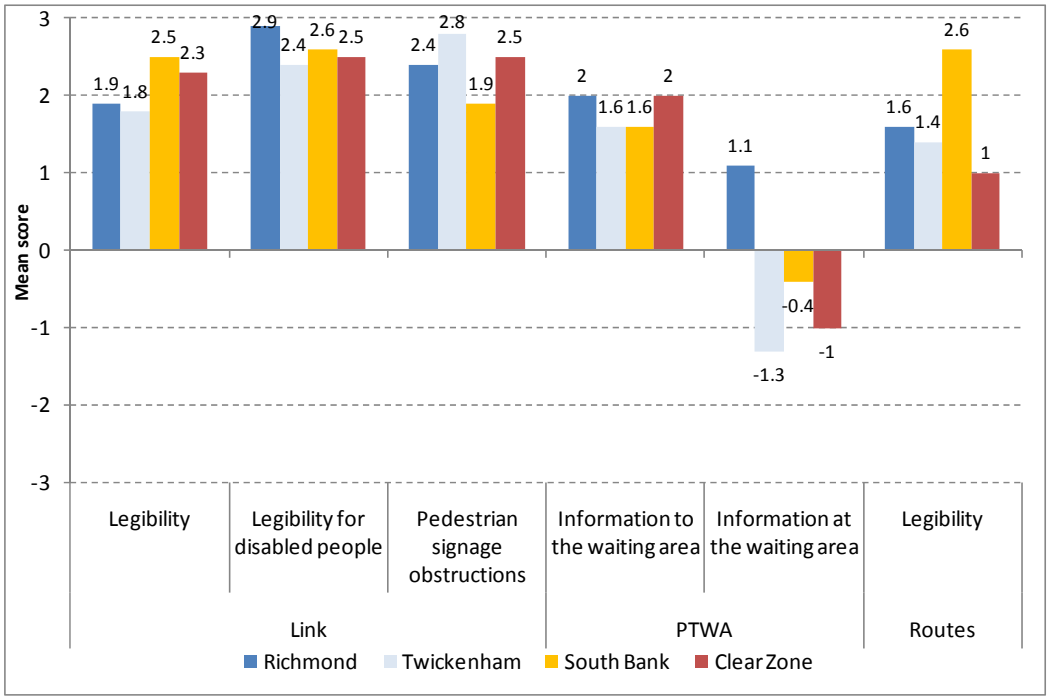
5.33 The legibility of routes measure provides an indication of changes in wayfinding ability.

5.34 Comparing across the pilots, as in Figure 5.6, shows that generally scores were similar in all the pilot areas.

5.35 Apart from information at the waiting area, as mentioned above, a relatively low score was seen for route legibility in the Clear Zone, which was due to gaps in provision of signage. Route legibility was scored particularly highly in the South Bank pilot area.

5.36 Link legibility was scored slightly higher in the central London compared to the outer London locations.

FIGURE 5.6 PERS AUDIT MEAN SCORES - POST-STAGE - COMPARING AREAS



Scores from -3 to +3

5.37 In the pre-stage, scores for each measure were forecasted based on the expected impact from Legible London[9]. The following charts show how the achieved scores compare to these forecasts.

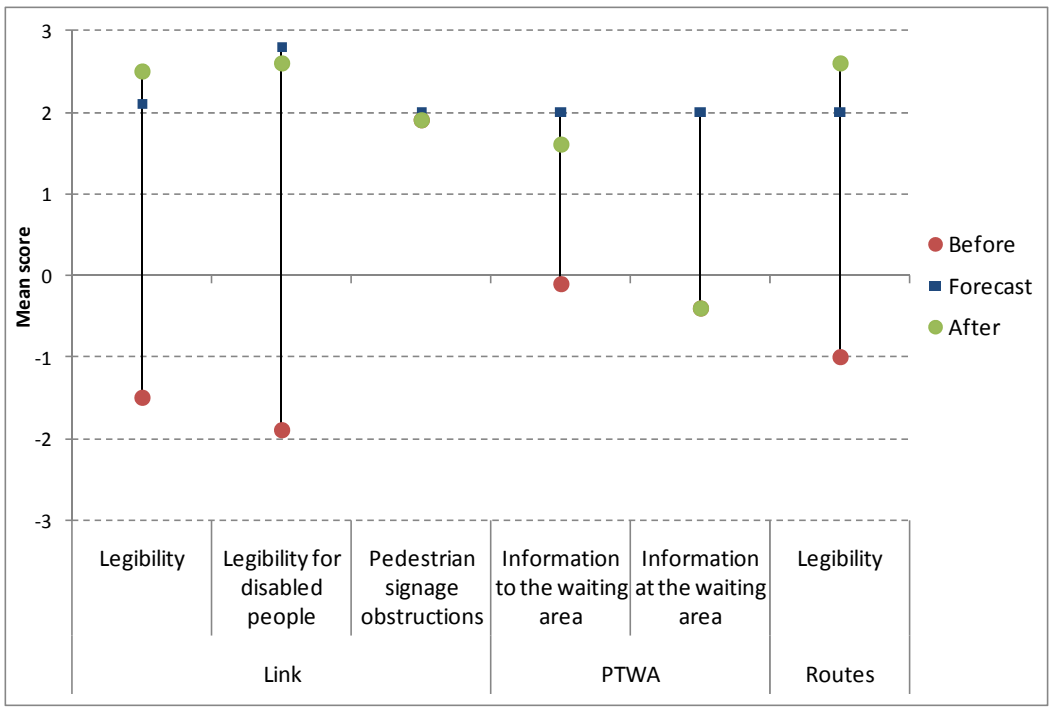
5.38 In none of the areas was the score for pedestrian signage obstructions expected to change greatly, which is what was then observed in the post-stage.

5.39 In the South Bank pilot, the achieved scores for link and route legibility in the post-stage slightly exceeded the forecast. In Richmond and Twickenham, scores were just under the forecast for both these measures.

5.40 The score for information at the waiting area was only seen to increase in Richmond, as this was the only one of the areas where Legible London maps had been installed at the bus stops surveyed.

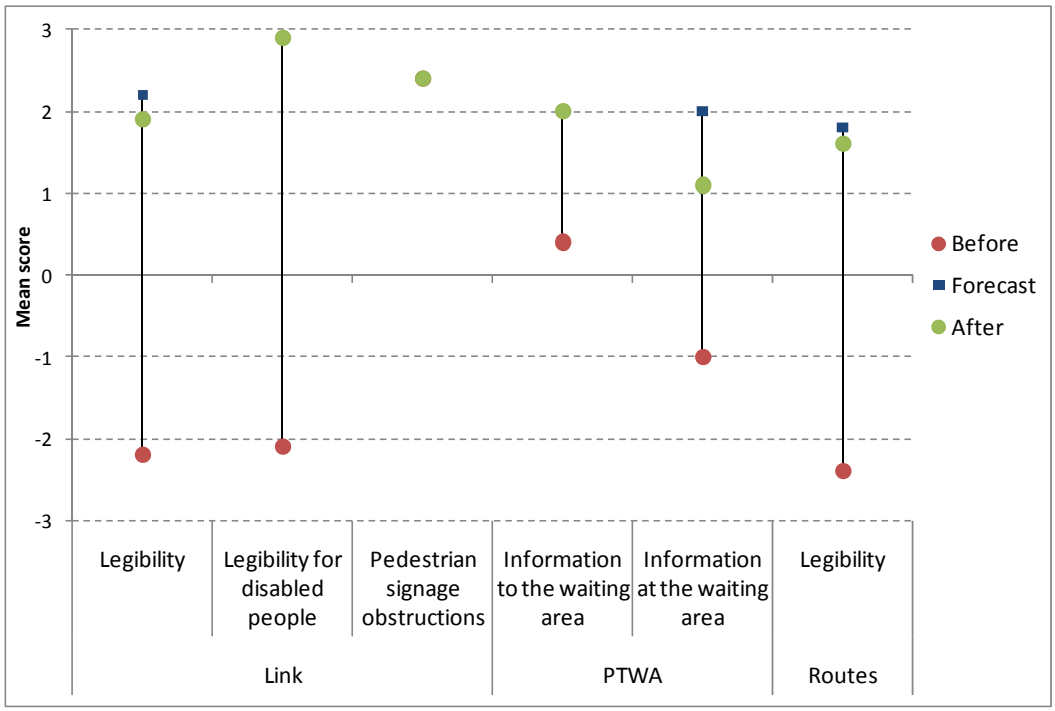
9 The forecasts produced for the Clear Zone are not comparable with the after stage audit, due to the reduced links surveyed

FIGURE 5.7 PERS AUDIT MEAN SCORES - PRE-STAGE, FORECAST AND POST-STAGE - SOUTH BANK



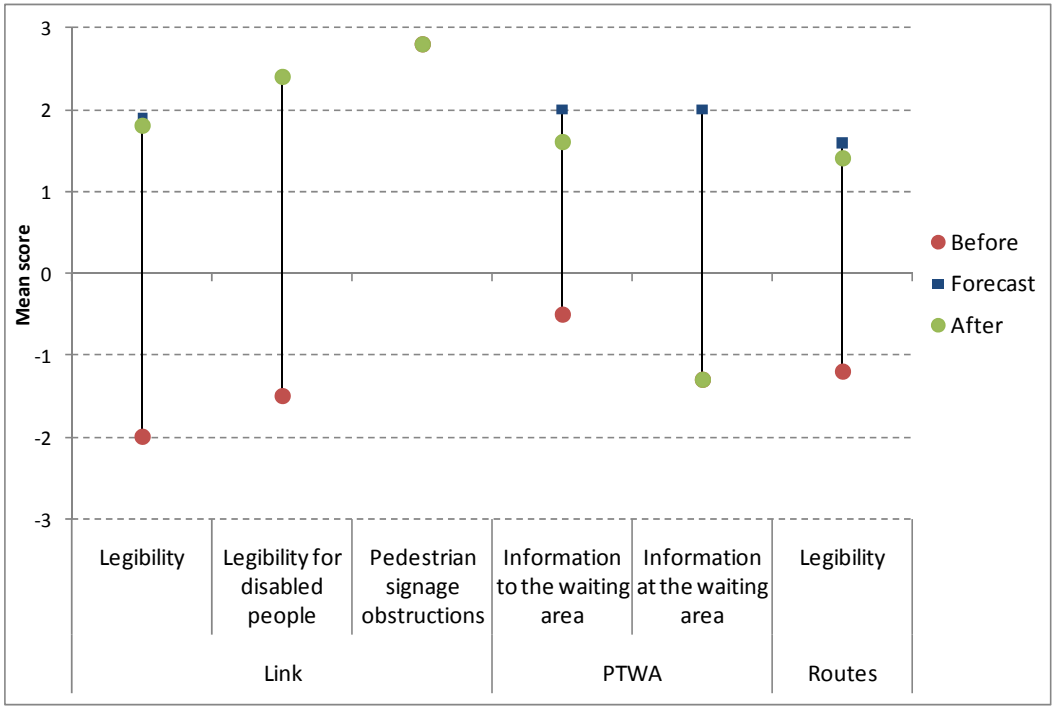
Scores from -3 to +3

FIGURE 5.8 PERS AUDIT MEAN SCORES - PRE-STAGE, FORECAST AND POST-STAGE - RICHMOND



Scores from -3 to +3

FIGURE 5.9 PERS AUDIT MEAN SCORES - PRE-STAGE, FORECAST AND POST-STAGE - TWICKENHAM



Scores from -3 to +3

5.41 As mentioned previously, there was little change, certainly not to the extent of the forecasts, in the already high score for pedestrian signage obstructions as the existing signage was not problematic, and the new Legible London signage was well placed.

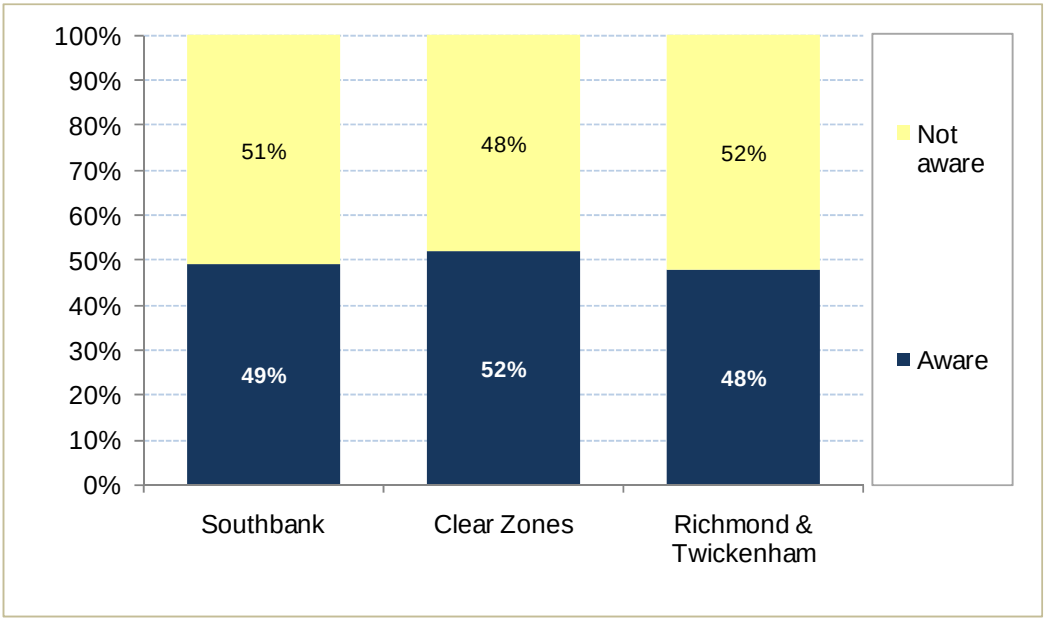
On-street surveys

Awareness

5.42 Overall, around half of pedestrians interviewed were aware of the "new pedestrian information scheme recently introduced in this area". In order to attribute changes in attitudes to Legible London, results have been compared for those aware versus not aware, as well as between the before (2009) and after (2010) waves.

5.43 Awareness stands at around half of pedestrians in each area, as seen in the following chart.

FIGURE 5.10 AWARENESS OF LEGIBLE LONDON SIGNS



Base = post-stage (South Bank 370, Clear Zone 218, Richmond & Twickenham 500)

5.44 Awareness is significantly higher amongst people who live outside the UK and Londoners, compared to people living in the rest of the UK. Awareness is also significantly higher amongst those who visit the area at least once a week, compared with those visiting less than once a month or for the first time. This is closely linked with the location of residence.

Behaviour change and mode shift

5.45 Respondents were asked how they arrived in the area on the survey day. In the pre-stage 43% had walked, compared to 39% in the post-stage.

5.46 The walk share for travel within the pilot area also appeared to drop slightly (87% down to 82% in the post-stage). However, the walk share amongst people aware of Legible London was significantly higher in the post-stage than amongst those who were not aware, albeit both lower than in the pre-stage.

5.47 This may be due to slightly different profiles of visitors in the Clear Zone and Richmond & Twickenham, with smaller proportions of frequent visitors seen in the post-stage at each.

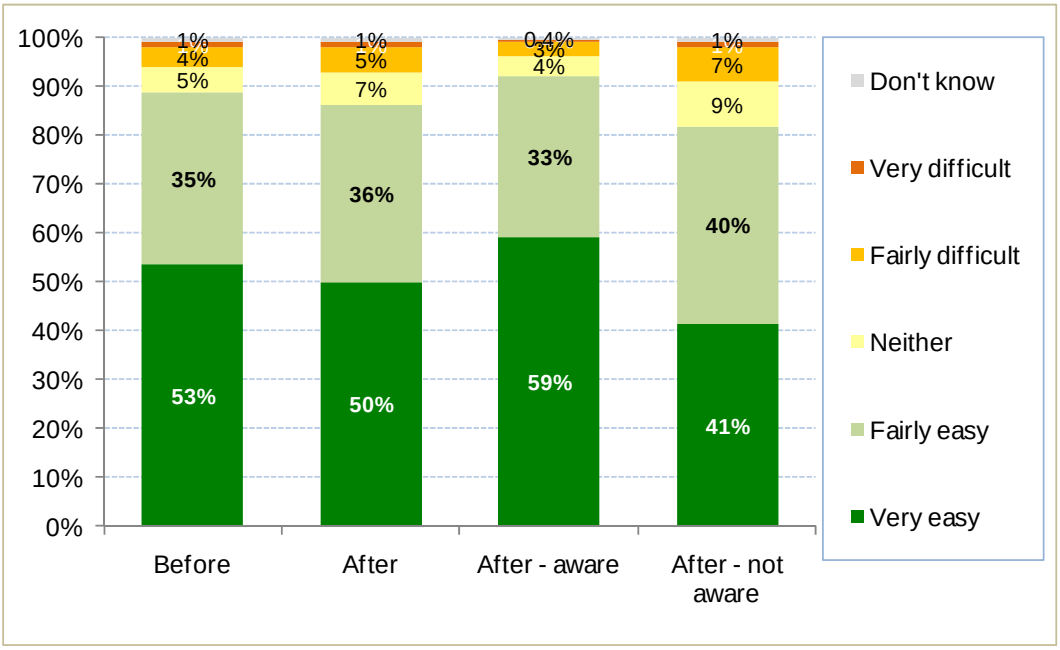
5.48 There is little evidence to suggest mode shift for trips within the pilots at this overall level.

Wayfinding

5.49 The overall proportion of respondents rating the ease of finding their way around the area on foot as very/fairly easy has changed little between the pre- and post-stages.

5.50 Amongst those aware of Legible London, the proportion saying very/fairly easy is significantly higher compared to the pre-stage, and is also significantly higher than amongst those not aware, showing that Legible London is having an impact.

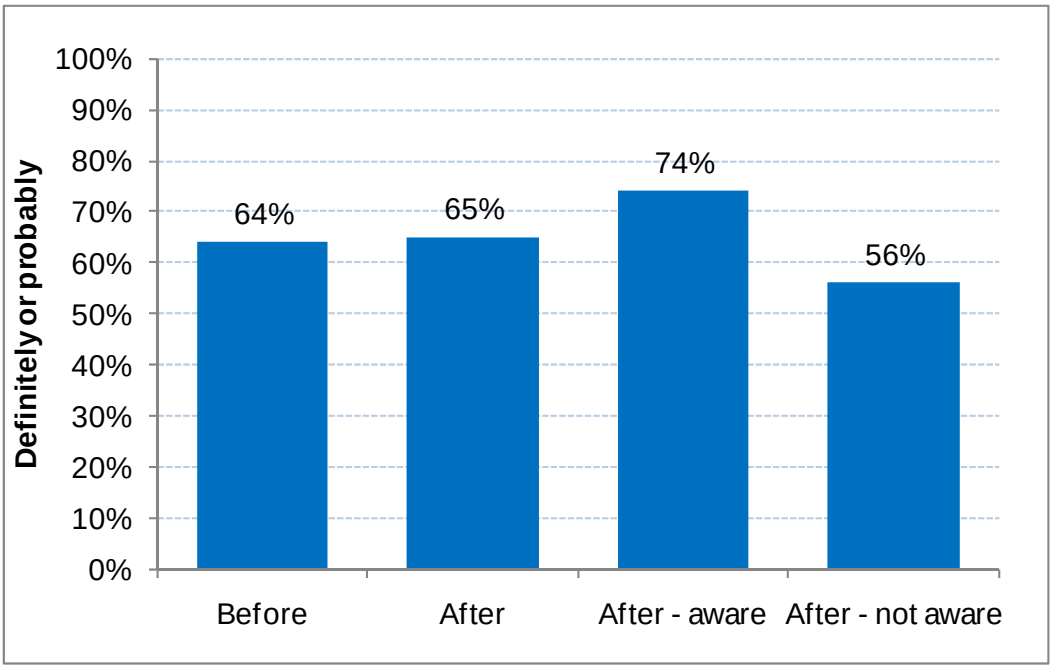
FIGURE 5.11 EASE OF FINDING WAY AROUND AREA BY FOOT



Base = pre-stage 2450, post-stage total 1088, aware 537, not aware 535

5.51 In order to test the ease of wayfinding, respondents were asked whether they thought they would be able to find their way to a specific destination. The following chart shows that the proportion who agreed with this did not really change overall, although amongst those who had seen Legible London, the proportion saying they knew how to find their way was significantly higher than in the pre-stage and also compared to those who were not aware.

FIGURE 5.12 WOULD YOU KNOW HOW TO FIND YOUR WAY BY FOOT?



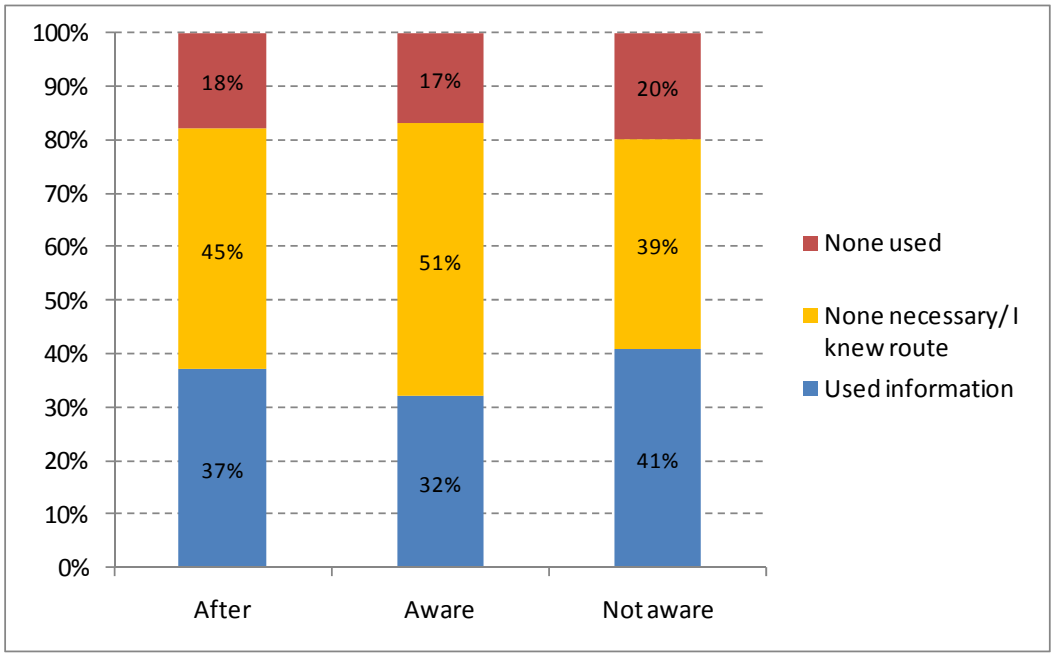
Base = pre-stage 2450, post-stage total 1088, aware 537, not aware 535

5.52 The estimated times given by those who thought they would be able to find their way did not provide any significant differences when comparing to the before wave or between those who had seen Legible London or not.

5.53 In the post-stage, respondents were asked about all the information sources they used during their visit to the area. Overall, just under two fifths of people used some information during their visit.

5.54 Information use was slightly lower amongst those who were aware of Legible London, likely related to a greater share of them being more frequent visitors.

FIGURE 5.13 USE OF INFORMATION SOURCES

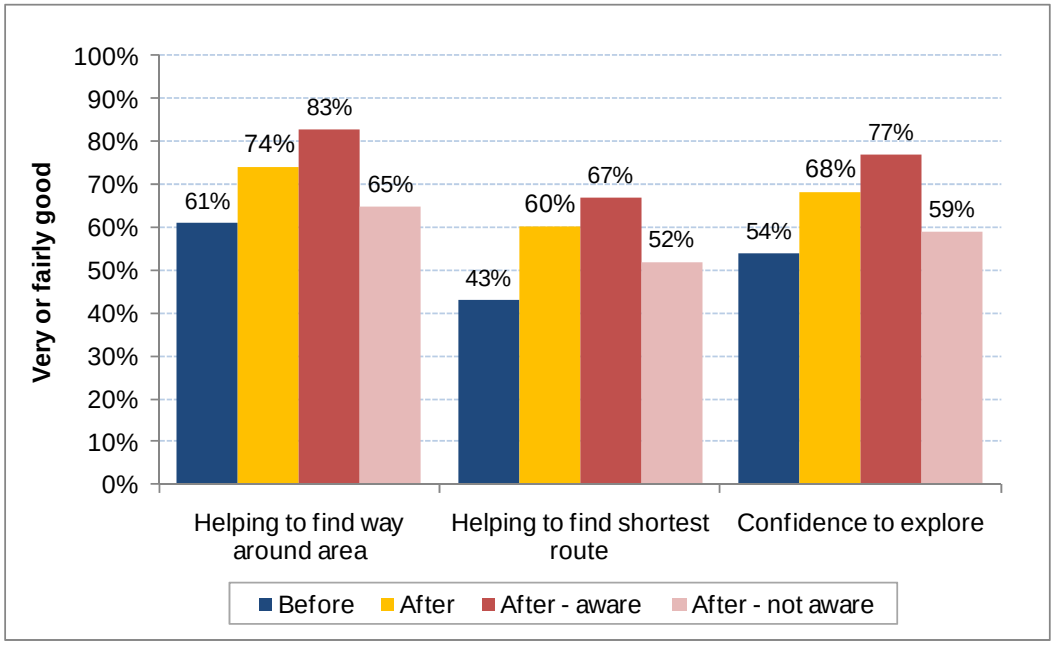


Base = post-stage total 1088, aware 537, not aware 535

Attitudes

5.55 Before respondents were prompted about Legible London in the survey, they were asked about three aspects of local signage in the area. The following chart shows the proportions of respondents who stated very or fairly good for each.

FIGURE 5.14 RATINGS OF LOCAL SIGNAGE



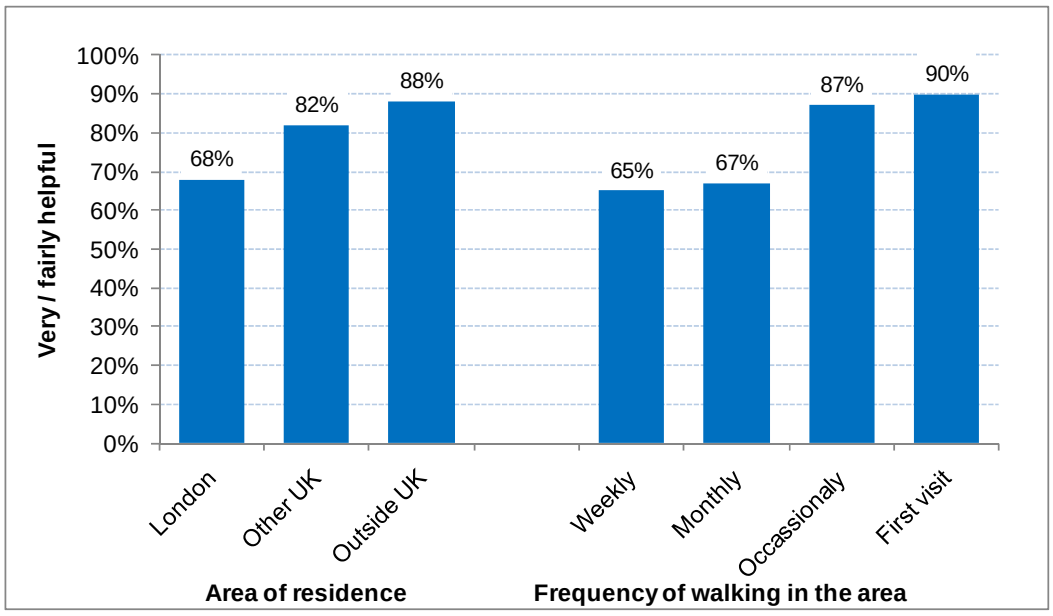
Base = pre-stage 2450, post-stage total 1088, aware 537, not aware 535

5.56 This shows the significant increases in scores between the pre- and the post-stages for all aspects. Ratings were seen to increase amongst all respondents, both those aware and those not aware of Legible London, however the increase amongst those aware was much greater.

5.57 Those aware of Legible London were also asked how helpful and effective they thought it was. Overall, 73% stated that the scheme was very or fairly helpful personally, and 93% stated that it was very or fairly effective in enabling people to find their way about the area.

5.58 Comparisons by area of residence and frequency of walking in the area are shown in Figure 5.15. Although Legible London is of most use to tourists and infrequent visitors, it is also apparent that it is helpful for local people and frequent visitors.

FIGURE 5.15 HAS THIS PEDESTRIAN INFORMATION SCHEME BEEN PERSONALLY HELPFUL TO YOU? – ALL PILOTS



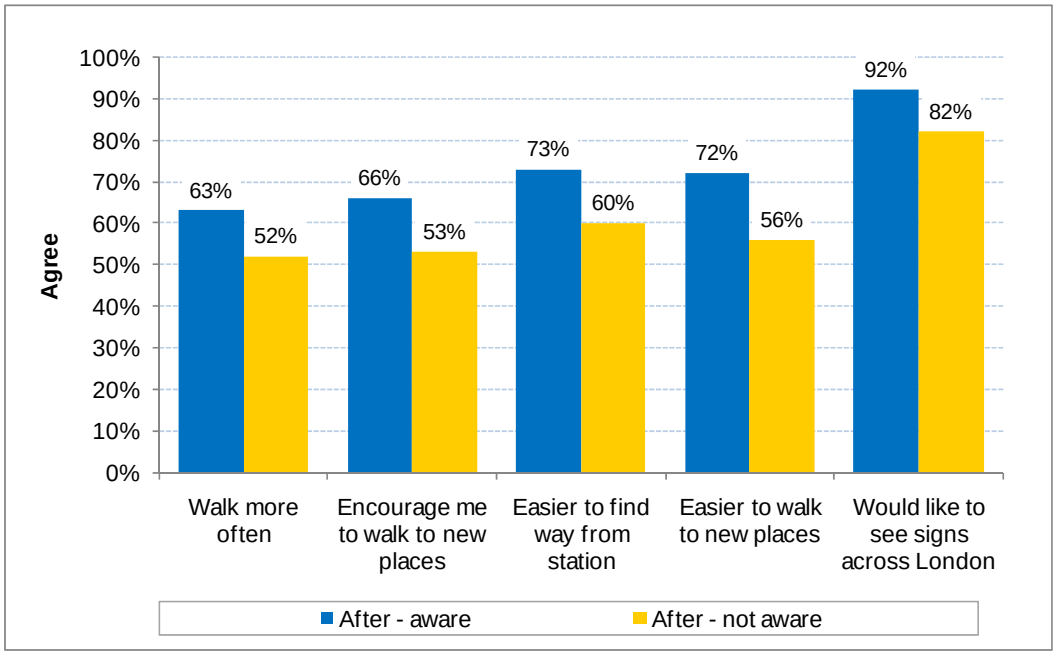
Base= post-stage those aware of Legible London (537)

5.59 The share agreeing with the scheme being helpful was statistically higher in the Clear Zone compared to the other areas.

5.60 Over nine out of ten pedestrians who had seen Legible London said that they would like to see it rolled out across London. Two-thirds also said that the signs and maps had encouraged them to walk to new places.

5.61 Attitudes to signs and maps are shown in Figure 5.16. This compares results for those aware and not aware of Legible London and it is encouraging to see that the attitudes amongst the aware group are significantly more positive than the not aware group.

FIGURE 5.16 ATTITUDES TOWARDS SIGNS AND MAPS IN THE AREA – ALL PILOTS



Base=post-stage (aware 537, not aware 535)

Mystery shopping

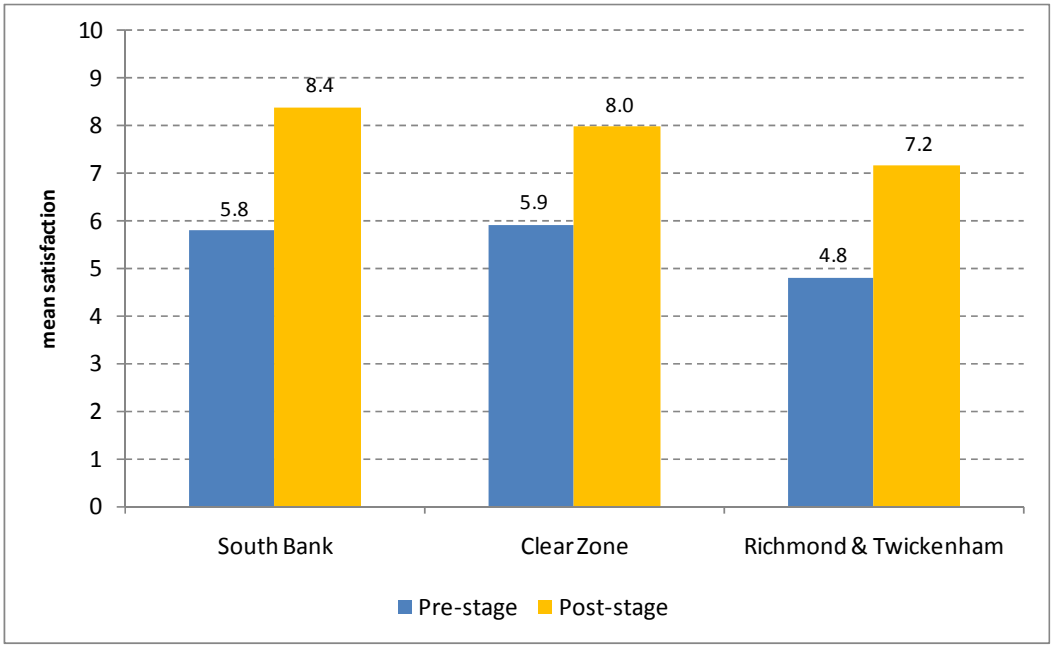
5.62 The overall satisfaction recorded by mystery shoppers was noticeably higher in each of the three pilot areas (see Figure 5.17) in the post-stage compared to the pre-stage (rising to 7.8 out of 10 compared to 5.5 in the pre-stage). These overall scores for the pilot areas do mask some differences seen on individual routes; the detail by route is described in the following chapters.

5.63 A discussion group was held with some of the mystery shoppers, and some quotes from this have been included in this section.

It should be noted that the mystery shopping data is based on small sample sizes and is not designed to show statistical significance despite the somewhat quantitative manner of data collection. They should instead be taken as illustrative.

5.64 The increase was highest in the South Bank pilot area, while Richmond & Twickenham received a slightly lower score, generally consistent with the pattern in the pre-stage.

FIGURE 5.17 MYSTERY SHOPPER SATISFACTION BY PILOT AREA- COMPARISON OF PRE- & POST-STAGES



Base=South Bank pre-stage 20 post-stage 20, Clear Zone pre-stage 25, post-stage 25, Richmond & Twickenham pre-stage 20 post-stage 20

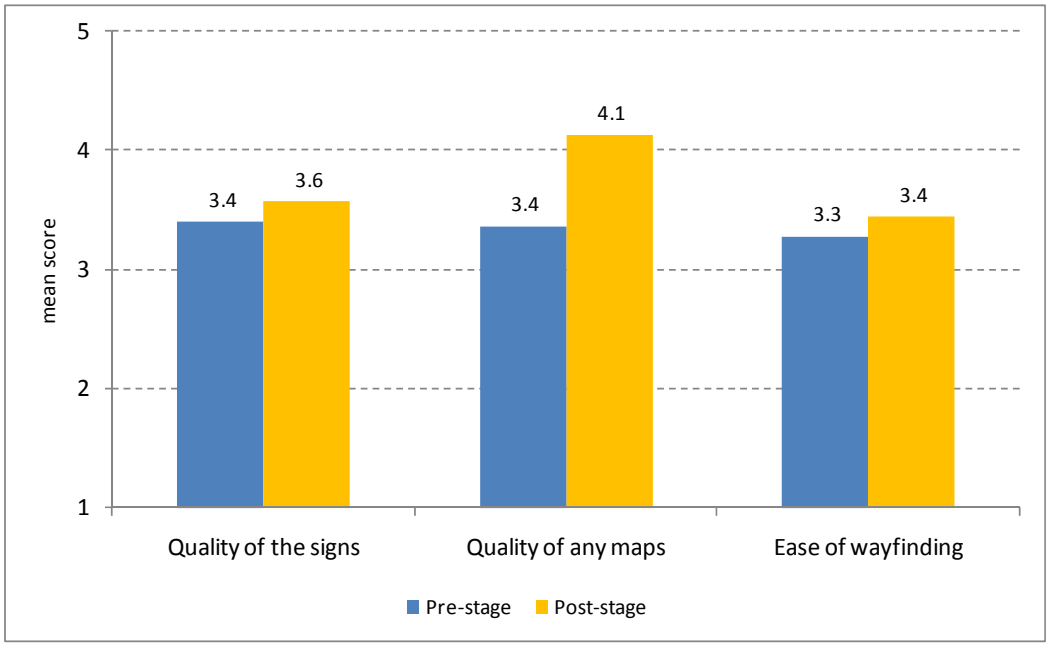
5.65 Once the walk was completed, mystery shoppers rated their journey in terms of ease of wayfinding (on a scale of 1 to 5, where 1 = very hard and 5 = very easy). Overall, the rating improved very slightly comparing the pre- and post-stages (3.3 to 3.4).

"It [Legible London] really shows exactly where we are and it really shows the directions where we want to reach exactly. And it is helpful in showing the directions and which way, which road we have to take to reach that particular road."

"I just feel that this is like a TomTom for the walkers. It's quite easy to find the destination."

5.66 They also rated the quality of signs and maps seen and used on their walk. These could be any information sources they used, not just Legible London. The scores for both signs and maps improved in the post-stage.

FIGURE 5.18 RATINGS FOR WAYFINDING

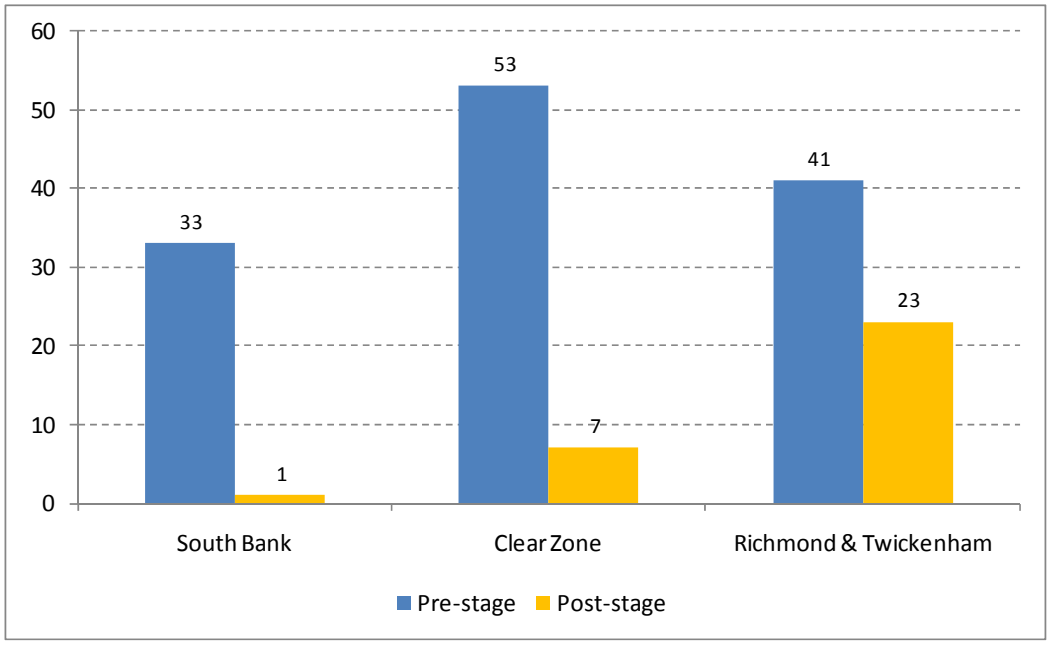


Base= pre-stage 65 post-stage 65

5.67 Mystery shoppers spontaneously suggested that having the same style maps at bus stops would be very helpful.

5.68 The number of occasions on which mystery shoppers failed to find information when they needed it fell dramatically between the pre- and post-implementation surveys, as shown in Figure 5.19. Across the three pilot areas, the number of occasions recorded fell from 127 to 31 (this is an average of 1.95 and 0.48 per walk respectively).

FIGURE 5.19 OCCASIONS OF FAILING TO FIND INFORMATION WHEN NEEDED



Base=South Bank pre-stage 20 post-stage 20, Clear Zone pre-stage 25, post-stage 25, Richmond & Twickenham pre-stage 20 post-stage 20

5.69 Information sources appeared to be used more frequently on the post-stage walks. In particular, maps were more likely to be used (0.9 times per walk in the pre-stage and 3.0 in the post-stage). Many of these can be attributed to being Legible London signs.

5.70 The information used and the reduction in failing to find information resulted in a reduction in the number of times that mystery shoppers definitely felt lost, which fell from 0.26 to 0.03 occasions per walk.

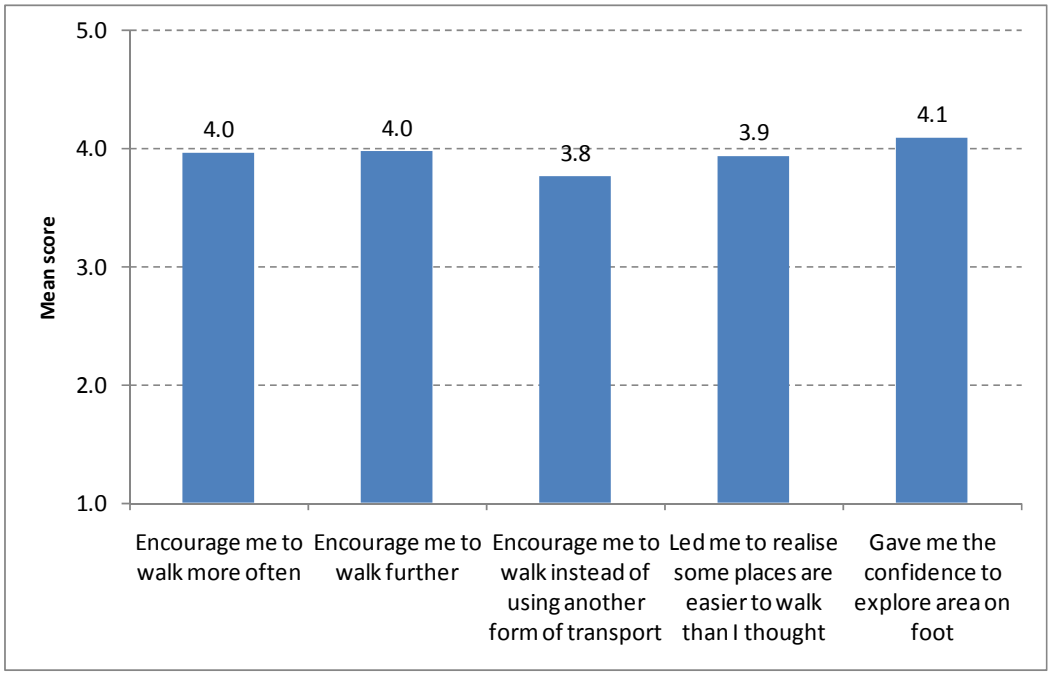
5.71 The time taken for the walk was recorded and expected to improve due to the implementation of information in the pilots. Overall, the average journey time reduced marginally from 50 to 48 minutes.

5.72 Almost all mystery shoppers saw and used Legible London on their walk. It was rated very highly on average in terms of quality and helpfulness (4.5 and 4.4 out of 5 respectively).

5.73 In the discussion, mystery shoppers suggested that these maps would be most helpful for visitors and tourists.

5.74 The following chart shows the overall agreement with statement presented to respondents after their walk relating to Legible London. These ratings are all very positive.

FIGURE 5.20 ATTITUDE STATEMENTS



Base= post-stage 65

Ratings where 1 = Disagree strongly to 5 = Agree strongly

"It was quite useful and I found some interesting place as well that I have to go there and see that places as well"

5.75 In the group there was a discussion about the two maps on the monoliths, and how there needed to be a clearer link between them. For some mystery shoppers, their destination could be found on the 15-minute map but not on the 5-minute map, but the 5-minute map was easier for navigating. One suggestion was to add arrows around the edges of the 5-minute map showing the direction of further away destinations.

Accompanied journeys

Awareness and placement

5.76 Most of the respondents taking part in the accompanied walks spotted at least one of the monoliths along their route, even if they had never seen one before. They were generally viewed as distinctive and prominent and, on the whole, well positioned. However, there were some instances in each of the areas of mis-positioning, leading either to their being missed altogether or to the pedestrian needing to retrace their steps or cross a road to look at a monolith.

5.77 Once a pedestrian had seen one of the signs and realised there were more around, visibility was not an issue as the distance between them was normally conducive to being able to see at least one other sign. There was, though, a problem in some locations (particularly around Tottenham Court Road and some of the residential

areas of Richmond and Twickenham) in that there was little other information and nothing to suggest that there would be a map of any description. In particular, not everyone expected to find a useful local map at rail stations or bus stops so many respondents did not think to look there.

5.78 Even those who had seen the monoliths before in one of the central London areas did not necessarily expect to see them in another pilot area. Once they had a grasped the idea of the scheme, though, there was considerable enthusiasm for them and an expectation that they would be sited every few hundred yards. A frequently made suggestion was that the location of the signs should be plotted on the monolith maps.

User response

5.79 There was an almost unanimously positive response to the scheme and to the design of the monoliths. Even people who claimed to be nervous of using maps found the 'heads-up' style easy to use and informative.

"It's excellent – the maps are easy to read and I find maps hard to read normally! It was great that I could check the route throughout the journey" (South Bank)

5.80 A particular benefit in central London was the ability to see from the monolith maps how far particular landmarks were from each other, often obviating the need to take a bus or tube and encouraging walking instead. The 5-minute and 15-minute walk radii helped considerably here, although not everyone noticed or fully understood these (this will be covered in more detail later).

5.81 Visitors to Richmond and Twickenham for the walks commented that they would feel encouraged to explore the area more having had notable landmarks and places of interest pointed out to them and having seen just how close they were to the station and the centre (for example, Petersham Nurseries, Ham House).

5.82 Those in the central London areas expressed the view that they would feel more confident about exploring new areas of London if they knew they could find such helpful information, whereas they had not previously expected to see maps in central London.

5.83 The majority of those taking part in the walks were in the habit either of pre-planning walks in areas they did not know, for example by using online maps or an A-Z, or of checking their location and a route via their mobile phone. They felt that they would now be able to find their way without resorting to any other information source and would not need to ask the way as frequently either.

Impact on mode use

5.84 Most of those taking part already walked a fair amount but all felt the Legible London scheme would encourage them to walk more, mainly by more clearly informing them of the distance of neighbouring areas and landmarks.

5.85 Although there were no signs of walking taking the place of driving as a result of Legible London, it was clear from some of the interviews that the signage would

encourage people to make journeys on foot which previously they might have made by tube or bus, merely because they did not realise how close places were:

"I would walk further as it puts places in perspective. You can see how near they actually are to where you are" (South Bank)

"If I knew something was only 15 minutes to walk I'd do that rather than take the bus or tube. It often happens that you end up taking a cab or something and then realise it's just down the road" (Richmond and Twickenham)

5.86 Those who already used rail believed that the scheme could provide an incentive to visit a new area of London if they knew that there would be good signage when they arrived at the station.

"I think this is a really good idea and I'd definitely use these if I was in an area I didn't know" (Richmond & Twickenham)

Design

5.87 The design of the monoliths had universal appeal and they were variously described as:

"clean, new and modern" (Richmond and Twickenham)

"clear, concise, precise and easy to understand" (South Bank)

5.88 There were some problems with lack of prominence in some locations where the pedestrian approached the monolith from the side and the narrowness of the structure meant they failed to notice it (for example outside House of Fraser in Richmond). On the whole, though, the design was seen as elegant and modern as well as practical.

5.89 In terms of the maps themselves, there were some issues about the relationship between the two scales of the maps, about half the respondents not fully appreciating that one of the maps was a larger scale than the other and not understanding why there were two versions. One solution suggested was to relate the two by showing the 5 minute circle on the smaller scale map:

"They need to point out that one is a magnification of the other – show the little circle inside the bigger one or something" (Richmond and Twickenham)

5.90 There were also some comments that the signs could be made more prominent, for example by improving the prominence of the yellow strip at the top, or that the purpose could be made more obvious:

"I thought it was a bus stop for those tourist buses. Maybe it could have something saying 'Guide' or 'I'm a map'" (South Bank)

5.91 Some pedestrians failed to notice the 'walking man' logo until it was pointed out and one or two in Richmond and Twickenham asked why a TfL logo was not in evidence if they had introduced the scheme.

5.92 Other suggestions for inclusion in the design were marking on toilets, showing a 20-minute walk range (which was mentioned as being a 'healthy walk' distance), explaining that there will be more monoliths at frequent intervals (and possibly even showing them on a map) and including GPS reference points.

5.93 A more serious problem on some routes was the inability to find key destinations on the map index. This occurred either due to trying to find a location outside the 15-minute area, or the location not being in the index despite being in the area.

5.94 This happened in Richmond and Twickenham where Richmond Gate, Richmond Park and Marble Hill House were not listed in the index. In the South Bank area, Lower Marsh was not listed and in the Clear Zone, respondents had difficulty finding Oxford Street or Dean Street and a respondent starting at Tottenham Court Road had no idea where to find the National Theatre.

Impact on users' confidence

5.95 As an additional source of information, the monoliths were seen as invaluable by almost all those taking part in the accompanied walks. Those who knew the area in which they were walking would possibly not normally have noticed the signs (and some did not) and those walking in central London are certainly more likely to use prominent landmarks (such as London Eye, Houses of Parliament) as well as the river and the various bridges by which to navigate. But when walking in a new area, especially as a tourist, all were agreed that the signs are a confidence building and easy to use addition to the range of directional signs which not everyone notices or uses.

5.96 With the exception of those who failed to find their destination on the map or in the index, the walkers found the information reliable and easy to access and would welcome a rolling out of the scheme across other areas.

5.97 What would be helpful, though, would be the better positioning of some of the monoliths, which will be dealt with in the area specific sections of the report.

5.98 It is also worth noting that not all users fully understood the way the information was intended to be used. Not everyone realised the sign was two-sided, most did not understand the relationship between the two maps and many did not notice the 5 minute and 15 minute walk radii. There is therefore scope for improving the levels of understanding and therefore potential usage of the monoliths.

Additional questions from LDA

5.99 A number of additional issues have been raised by the London Development Agency (LDA), which were considered in the post-stage. These questions were addressed through the research to some extent, albeit mainly in a qualitative manner, and not providing a quantifiable response.

5.100 The accompanied walks have helped to throw light on a number of issues raised the LDA and these are discussed here.

Night time legibility

5.101 Although none of the accompanied walks was conducted during the hours of darkness or at dusk[10], several respondents in the accompanied journeys spontaneously suggested that it would be useful if the monoliths were lit at night, not merely to make them legible but also to draw attention to them and to prevent accidents.

5.102 In the mystery shopping discussion group it was felt that it might be difficult to see/use the maps in the dark, as they are already dark coloured.

5.103 The on-demand lighting used for the Cycle Hire docking stations and bus stops was mentioned by a few respondents as being a good idea.

Predictable sign placement

5.104 Respondents on the accompanied journeys were asked whether there were points on the journey where they were expecting to see additional information. Once one of the monoliths had been seen there was a certain expectation that there might be more, although there was often surprise at the volume of the signs in some areas (including in central Twickenham and Richmond).

5.105 There were specific instances where there was a clear need for a sign but, in general, the most obvious of these is where there is a junction or fork in the road where it is not clear from any other signage which road leads in which direction.

5.106 Another instance is at major stations (e.g. Charing Cross) or areas popular with tourists (e.g. Leicester Square) where a local map is not as prominent as a monolith could be.

Awareness of map on opposite side

5.107 Although not everyone noticed that the signs were two-sided, the consensus was that it would be unnecessary to indicate that there were two sides since a user would either approach from the direction from which he had travelled (and therefore see the side needed) or approach from the narrow side and see that there were two-sides. Others believed it would be obvious to most people that the sign was likely to be two-sided.

5.108 Seemingly, unlike other pedestrians, the mystery shoppers stated that they generally looked at both sides just to have a look.

"I didn't expect that it would be the same on the other side actually. I expected something else...once I was with this map the other side might be something else, but when I turned over it was the same map with...different directions"

Impact of information in encouraging longer journeys and linking villages/ neighbourhoods

5.109 While it was difficult for accompanied walk respondents to gauge the extent to which they would be likely to use the information to walk further or to link neighbourhoods, there were clear signs that users felt their understanding of the

[10] It was not possible to conduct on-street user surveys once dark, due to dusk being late in the evening during the fieldwork period

local area could be enhanced by the signage and that they could identify more opportunities to walk via the range of landmarks and places of interest identified by the maps. This was particularly the case in Richmond and Twickenham for those who did not know the area well.

5.110 There were, in addition, comments about an increased understanding of how close places are (such as those in paragraph 5.85), although the actual behavioural impact of this was not measurable.

5.111 The on-street surveys asked respondents how far they agreed with the statement 'the signs and maps in this area encourage me to walk more often'. Overall, 58% of respondents in the after stage stated that they agreed/ agreed strongly with this statement. This proportion was larger amongst those aware of Legible London (63%).

5.112 Additionally, the statement 'the signs and maps in this area encourage me to walk to places I would not have done before', also garnered similar levels of agreement (60% agree, with 66% agreement amongst those aware of Legible London).

5.113 One comment from the mystery shopper discussion:

"In my point of view in this recession time some people can go to, by using these maps some nearish places by using these maps instead of going and spending £2 or £3."

Long distance visibility and identification, angle of placement

5.114 In general, the signs were seen as highly visible and able to be seen from across the road and, in some cases, from the next monolith location. The yellow top was often the first element noticed (once the scheme had been noted) but there were comments that the prominence of the strip could be enhanced in order to compete with other signage more effectively.

5.115 The walking person logo was not noted spontaneously by respondents in the accompanied journeys and generally considered unnecessary. In the mystery shopper discussion, there was little recognition of this as anything other than a generic walking symbol.

5.116 The location of the monoliths on the street was not considered to be an issue in the surveys. The PERS audit rated the new signage very positively, and with little change in scores. There had been few issues with clutter in the before audits, and therefore the new signage was not seen to be problematic.

5.117 The angle of placement was seen to be sensible as generally the maps faced the direction of travel. It was however mentioned that, in some locations, it might be easy to miss a monolith on the opposite side of the road when only faced by the thin side.

5.118 In a couple of locations the monoliths were thought to be a little too out of the way, so that it was less obvious.

Intermodal interface

5.119 Pedestrians who regularly use bus, rail or tube are starting to recognise that better local information is available at stations and stops. Non-users, though, are much

less aware and need to be educated to look for such signs to complement the other information available.

5.120 This point was also illustrated by the increase in score in the PERS audits where Legible London maps had been installed at bus stops.

5.121 Bus stop maps are an important source of information as illustrated in the mystery shopping journeys. Similarly for stations, a number of people in the accompanied journeys stated that they always know to look for information at stations, so this was a location they were looking for during their walk to 'guarantee' information.

5.122 In the on-street surveys, respondents were asked what information they used when finding your way from the station (amongst those who arrived by rail or Underground). Just under half of people used some form of information for finding their way: 8% of people used a map on street and 6% used direction signage, some of which is likely to have been Legible London.

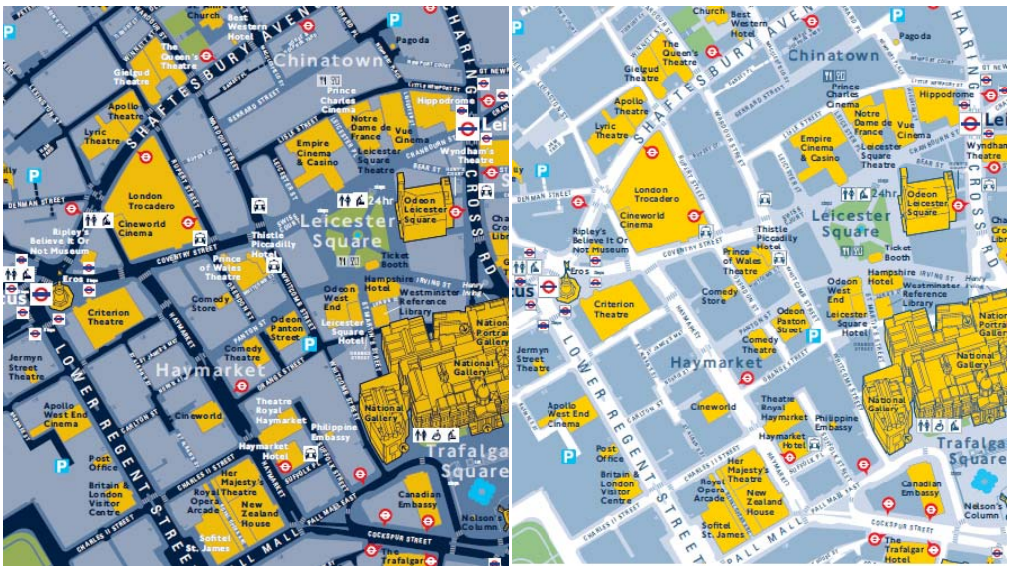
5.123 Agreement with the statement 'the signs and maps in this area make it much easier to find your way from a rail or Tube station' stands at 66%, and higher (73%) amongst those aware of Legible London.

Light / dark base map

5.124 The background mapping used for Legible London is on a dark coloured base map, as on the left hand image in Figure 5.21. The accompanied journey respondents were asked for their opinion on a comparison between this and a light coloured base map (the right side image below), in order to test which was preferred.

5.125 This test was required to ensure that the base mapping, which is unusual in its colour scheme, does not distract from its usability.

FIGURE 5.21 BASE MAPPING – COLOUR COMPARISON



While both colourways appealed to the majority, there was a marginal preference (particularly in Richmond and Twickenham) for the current, dark version and on the whole, this was seen as visually more appealing. For the majority too this was the clearer version, although some felt that the use of darker lettering on a pale background was easier to read.

6 Survey Detail South Bank

Key findings

6.1 Compared to before installation, pedestrians in the South Bank pilot area are more positive about walking around the area.

6.2 Scores are generally high across the various measures in the surveys, with indications that they are highest amongst those who saw/ used the monoliths and in the locations where they are in place.

6.3 While Legible London appears to be impacting positively on attitudes, in terms of peoples' ability to estimate journey times and actual mode shift, the findings are less clear.

Awareness

- Overall, around half of pedestrians in the pilot area were aware of the scheme, and amongst those completing the accompanied walks and mystery shops, almost all used at least one monolith.
- Those who visit more frequently are more likely to be aware.
- 'The findings consistently show that pedestrians aware of the Legible London scheme are more likely to be positive about signs and maps in the area and therefore more likely to highlight benefits than those not aware'[11]

Building confidence

- Relatively large increases were seen in people's ratings of their ability to find their way around, find the shortest route and their confidence to explore. These ratings were highest amongst those who were aware of the scheme, indicating its ability to build confidence.
- In addition, a high percentage of people stated that they find it easy to find their way about. This was high in the pre-stage, but increased in the post-stage particularly amongst those aware.

Legibility and clutter

- It was generally felt across the surveys that the signage was not a cause of clutter on street. In a couple of locations in the accompanied journeys, it was felt that signs were perhaps a little too set back.
- The PERS Audits provided quantitative results on the impact of the scheme. The score for clutter were unchanged from the pre-stage and high, showing that Legible London was not a concern.
- Scores for link and route legibility both increased greatly, providing high positive scores.

User perceptions

- One positive affirmation of the scheme was that the vast majority of pedestrians would like to see it provided in other parts of London.

[11] Legible London Pilot Evaluation – South Bank, Report of findings (On-street), Synovate, 2010

- Additionally, it was seen as helpful (on-street, mystery shop), effective (on-street survey) and high quality information (mystery shop).
- Accompanied journey respondents quoted a generally positive impact on their attitudes towards walking, particularly in understanding how close places are to each other.

Reduced journey times

- The wayfinding ability of the scheme was rated highly when people were asked to give a score.
- In addition, respondents on mystery shops did not feel lost or fail to find information as often as in the pre-stage. An increase was seen in the use of maps during the walks.
- However, when asked to estimate the journey time, this was not seen to have changed significantly when comparing before and after implementation.

Mode shift

- There is some data to support marginal mode shifts at this stage. The counts also showed a small increase (6%) in walking this year, and there was an increase in the proportion walking to the area.
- On the other hand, there was no change in walking within the area (which is already extremely high), and the increase in observed pedestrian volumes cannot be directly attributed to Legible London as there may have been other influences at work.

6.4 The following table shows the key indicators for the evaluation, and how they have changed since the pre-stage. In addition, post-stage only measures for awareness, effectiveness and helpfulness have been added from the on-street survey.

TABLE 6.1 RESULTS OVERVIEW – SOUTH BANK

All pilots	Source	Pre-stage	Post-stage	Change
Awareness of Legible London				
Awareness of Legible London (% aware)	A	-	49	-
Saw Legible London on walk (% of walks)	B	-	100	-
Information sources used (% of pedestrians using information)	A	-	41	-
User feedback	E	"I would want to know that they were going to be along the whole route"		
Change in attitude (confidence & user perception)				
Ease of finding way (% very/ fairly)	A	90	94	+4
Satisfaction: effective (% very/ fairly)	A	-	91	-
Satisfaction: helpful personally (% very/ fairly)	A	-	75	-
Satisfaction: finding way around area (% very/ quite good)	A	68	88	+20
Satisfaction: finding shortest route (% very/ quite good)	A	45	73	+28
Satisfaction: giving confidence to explore (% very/ quite good)	A	62	84	+22
Perception of journey time (average expected walk journey time, mins/ standard deviation)	A	18.2/10.0	17.42/7.83	-0.78
Failing to find information (count of occasions)	B	33	1	-32
Definitely felt lost at some point (% of walks)	B	15	0	-15
Would like to see rolled out across London (% agree strongly/ agree)	A	-	91	-
User feedback	E	"Yes, you'd know where you were going. You wouldn't be scared about getting lost if you knew these were all over the place"		
Change in behaviour				
Encourages me to walk more often (% agree strongly/ agree)	A	-	70	-
Encourages me to walk to places I wouldn't have done before (% agree strongly/ agree)	A	-	72	-
Walked within area (%)	A	90	87	-3
Walked to area (%)	A	39	45	+6
Volume of pedestrians (total pedestrians weekday 7am-7pm, 7 sites surveyed)	C	96,117	102,179	+6,062
Volume of use of signs (average users per sign weekday 7am-7pm, 4 monoliths surveyed)	C	-	204	-
User feedback	E	"Yes I would walk further as it puts places in perspective as you can see how near they actually are to where you are"		
Legibility and clutter				
Link legibility (rated -3 to +3)	D	-1.5	+2.5	+4.0
Pedestrian signage obstructions (rated -3 to +3)	D	-0.1	1.6	+1.7
Quality of signs (out of 5)	B	4.0	3.9	-0.1
User feedback	E	"you can see the yellow in the distance"		

Table notes:

* Significantly different at 95% confidence level

Sources: A On-street surveys; B Mystery shopping surveys; C Pedestrian counts; D PERS audits; E Accompanied walks

Note: post-implementation results for on-street surveys are for those aware of Legible London

6.5 As well as the overall scheme objectives, in the South Bank area the following issues are also being tested:

- Signpost a group of major attractions, including the London Eye, National Theatre and Tate Modern
- Further develop the system to show a complex urban environment, including bridges, multi-level walkways and the river
- Help people change between transport modes in the area more easily, including bus, Tube, train and river services around Waterloo

6.6 The study findings show that these objectives were met:

- The major attractions are marked on the monoliths, and the qualitative work showed a positive attitude towards the locations chosen. Many of those asked felt that the signage was of most use for tourists, highlighting their use for finding attractions.
- Mystery shoppers starting walks from Tate Modern found fewer monoliths, as fewer are available in this part of the pilot, and subsequently a more problems were had navigating from here.
- The PERS surveys analysed routes including a number of major attractors, and all has increased in score.
- The maps were shown to be useful in a complex environment. One good example is the IMAX roundabout, which was previously difficult to navigate, but with the implementation of Legible London has increased in terms of legibility (noted quantitatively in the PERS audit).
- The addition of the river to the maps was not commented on specifically in the surveys. However, two of the mystery shop/ accompanied journey routes took respondents across the river to their destination. No problems were noted for these walks, apart from where respondents walked outside the pilot areas. The PERS audits for cross-river routes all saw a positive change in scores compared to the pre-stage.
- Interchanging in the area does appear to have been made easier. Amongst people who arrived in the pilot area by rail/ Underground, a slightly larger proportion of those aware of Legible London used directional signage compared to those who were not aware, although this is not statistically significantly.
- Additionally, when asked directly the extent to which they agreed or disagreed that the signs and maps in the area make it much easier to find your way from a rail or Tube station, 80% of those aware of Legible London agreed. This compared to 63% of those who were not aware.

- Although station information has improved, bus stop information had not been upgraded to Legible London maps at the time of the surveys.
- In the qualitative work, a couple of less positive comments were made regarding signage inside Waterloo rail station, but the monolith outside the main exit was found to be very useful. Additionally, the monolith at Southwark station was highly used in the usage counts.

Local Context

6.7 The South Bank pilot area is illustrated in Figure 6.1 on the following page. It is located south of the River Thames between Westminster Bridge and the Millennium Bridge, extending south to Lower Marsh, The Cut and Union Street. The area includes one of the most important international cultural and arts complex and some of the most visited attractions in the UK. This includes the Tate Modern, the National Theatre, the National Film Theatre, the Purcell Rooms and Hayward Gallery, the Royal Festival Hall and the London Eye.

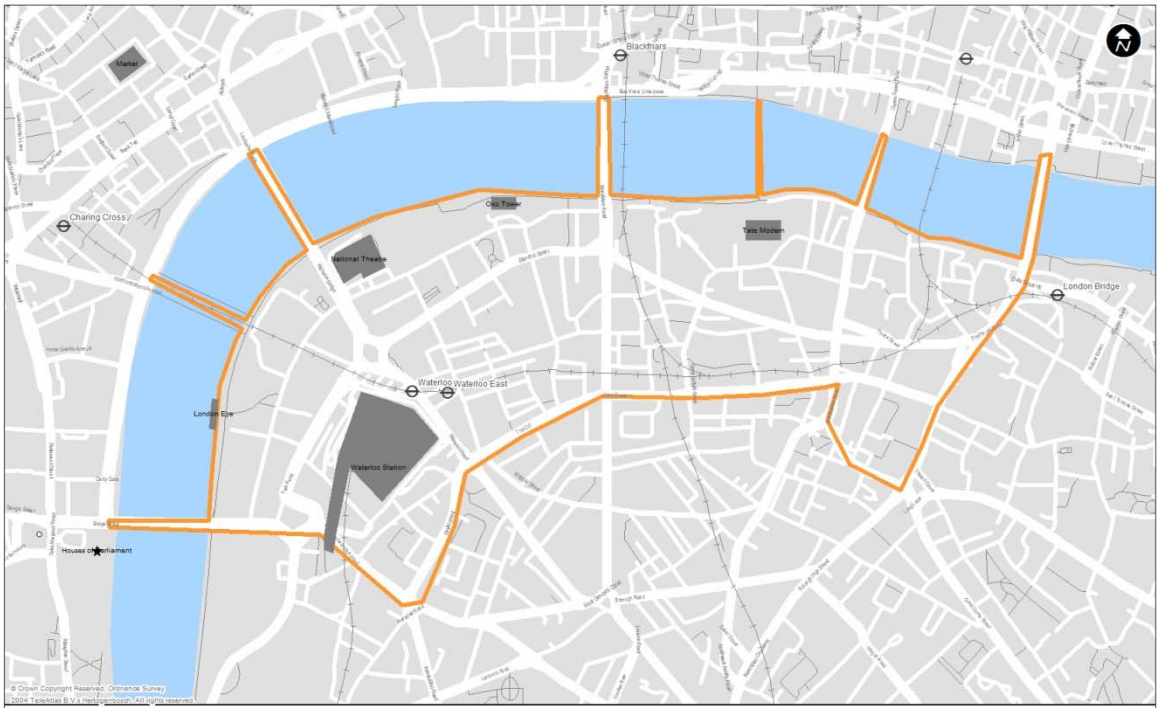
6.8 The area has extensive pedestrianised zones connecting these attractions and includes Waterloo station, which is the busiest rail station in the UK in terms of passengers[12]. Extensive redevelopment in the 1950's and 1960's has left much of the area comprising complex, confusing and multiple-level environments. These are often difficult to navigate and raises personal safety concerns. Waterloo Bus Station is overcrowded at peak times and, despite frequent bus services, delay and congestion is an everyday experience for many passengers.

6.9 The key issues around the placement of the Legible London infrastructure in the South Bank pilot area include:

- The key gateway role of Waterloo station for both commuters and other visitors to the capital. This is hindered by the confusing environment which passengers arriving there experience on exit.
- Congestion experienced by people arriving at Waterloo by train when changing to other transport modes to continue onward journeys, when many of these onward journeys could be made on foot.
- The arrangements for movement and signing around the IMAX roundabout are considered to be particularly confusing.
- The riverside walkway on the South Bank is particularly well used, and has become even more popular since the opening of Tate Modern and the Millennium Bridge. However, other parts of the pilot area such as The Cut, and new shops/ restaurants at Bankside Mix (at the rear of Tate Modern on Southwark Street) are potentially underutilised due to lack of awareness.

12 ORR, station usage 2008-9

FIGURE 6.1 SOUTH BANK PILOT AREA



6.10 The baseline report for the evaluations included profiling information for each of the pilot areas. The key findings from this are:

- The majority of the daytime population in the South Bank area are non-residents;
- The resident population have relatively low car ownership;
- The profile of the resident population indicate a higher than average propensity to walk.

6.11 Street clutter was audited in the South Bank pilot area and 39 items of borough responsibility, 24 private and 38 TRLN locations were identified for removal[13].

13 Transport for London, South Bank clutter audit, January 2010

Detailed Survey Programme

On-street user interviews

6.12 The following table shows the volumes of interviews completed at the South Bank locations in the pre- and post-stages.

TABLE 6.2 ACHIEVED INTERVIEWS ON-STREET - SOUTH BANK

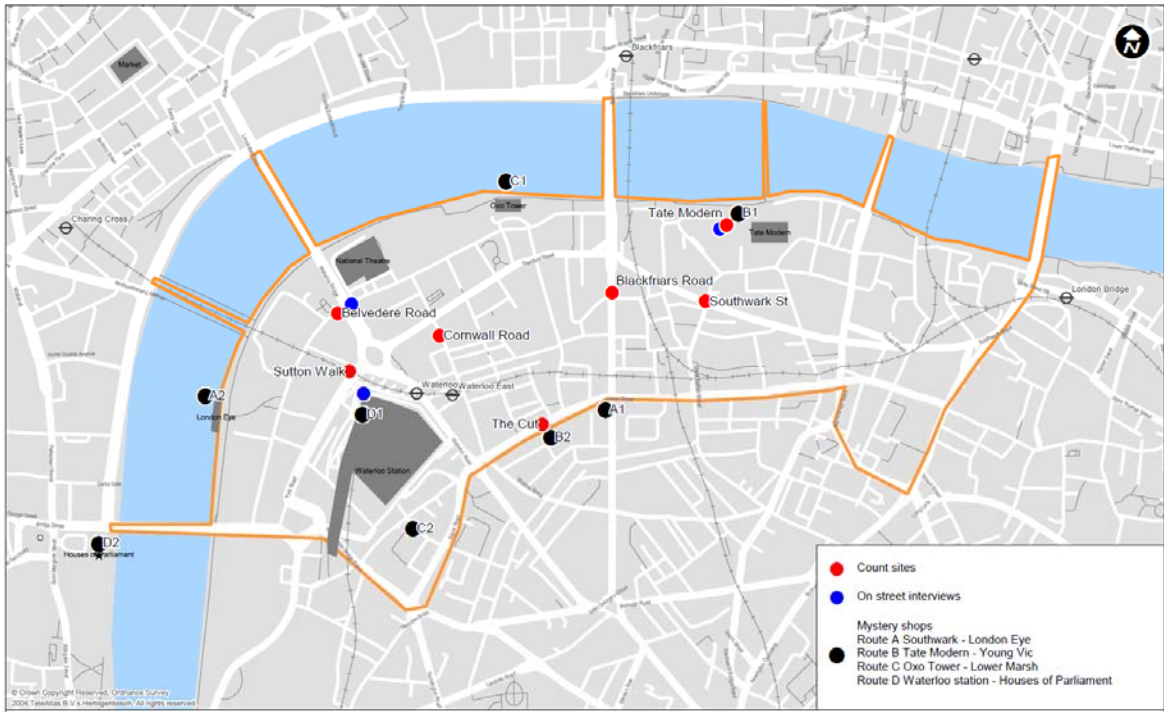
	Pre-stage 26th June - 17th July 2009	Post-stage 28th June – 20th July 2010
Tate Modern	275	122
Waterloo	263	125
Belvedere Road/ Upper Ground	274	123
TOTAL	812	370

6.13 The interviews were conducted between 7am and 7pm at:

- Outside the Tate Modern, as a key visitor destination in the area.
- The main exit of Waterloo Station (including the main gateway, and capturing the key route decision point at the IMAX Roundabout), aiming to include both commuters and other users.
- Upper Ground / Belvedere Road around Waterloo Bridge to capture a range of users, and a key decision point for both a range of South Bank destinations and to access key transport services.

6.14 The locations are shown in the following map.

FIGURE 6.2 SURVEY LOCATIONS MAP

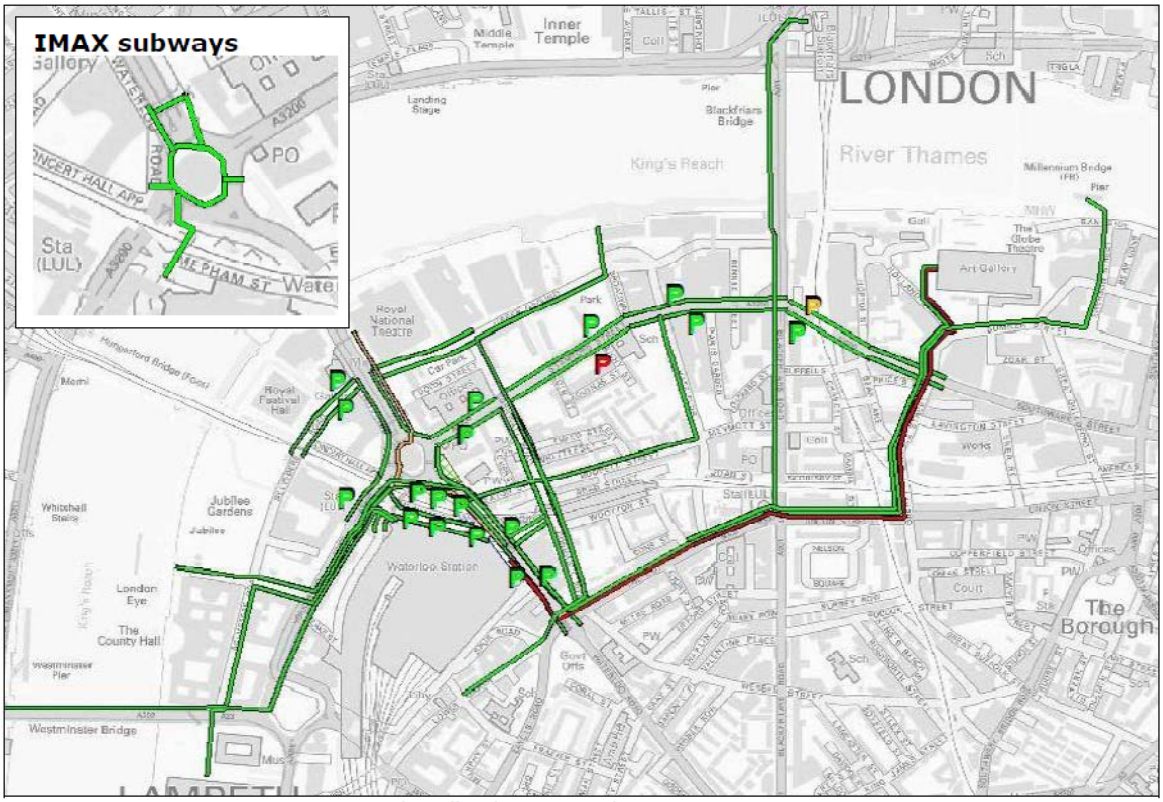


PERS audits

6.15 The PERS legibility audit was undertaken on 9th July 2009 for the pre-stage and 8th July 2010 for the post-stage between 9am and 5pm on each occasion.

6.16 The audit is divided into links, public transport waiting areas, routes, interchange spaces and public spaces. The audited components are indicated in Figure 6.3 below:

FIGURE 6.3 PERS AUDIT – AREAS SURVEYED IN SOUTH BANK PILOT AREA



Source: TRL

Pedestrian counts

6.17 Pedestrian counts were undertaken between 2nd and 4th July 2009 in the pre-stage and 1st-3rd July 2010 for the post-stage. The counts were conducted between 7am and 7pm. People walking in both directions were counted specifically at:

- Outside Tate Modern;
- North side of Southwark Street;
- Both sides of Belvedere Road;
- Sutton Walk;
- Both sides of Cornwall Road;
- The Cut; and
- Blackfriars Road.

6.18 In addition, in the post-stage, observation counts were conducted at two locations, each with 2 Legible London signs. People who stopped were counted, with the length of time stopped for also recoded.

6.19 The locations for these were outside Southwark station, and outside Waterloo station (Sutton Walk/ York road).

Mystery Shopping

6.20 The mystery shops undertaken were as in the following table:

TABLE 6.3 MYSTERY SHOPPING SCHEDULE - SOUTH BANK

		Pre-stage 9th - 12th July 2009		Post-stage 24th June - 4th July 2010	
		weekday	weekend	weekday	weekend
A	Southwark – London Eye	3	2	3	2
B	Tate Modern – Young Vic	3	2	3	2
C	Oxo tower – Lower Marsh	3	2	3	2
D	Waterloo Station – Houses of Parliament	3	2	3	2
	TOTAL	12	8	12	8

6.21 These start and end points for the routes are illustrated in Figure 6.2. Mystery shoppers were recruited so as not to be familiar with the area.

6.22 The Appendices include additional information concerning the mystery shopping survey including:

- an example mystery shopping record form; and
- maps of the routes actually taken by the mystery shoppers.

Accompanied journeys

6.23 Eight accompanied journeys were carried out in the post-stage of the evaluation. These used the same origins and destinations as the mystery shops. Much like these they recorded the journey taken to get to the destination, and the information used to get there.

6.24 They also provide more qualitative information on the experience of walking in the pilot area and use of Legible London.

6.25 Londoners were recruited by telephone, and based on their knowledge of the pilot areas, were allocated to one of the routes. People with a range of demographics and levels of knowledge were recruited for each pilot.

6.26 The following table shows the routes taken.

TABLE 6.4 ACCOMPANIED JOURNEYS - SOUTH BANK

		Post-stage 13th – 26th July
A	Southwark – London Eye	4
B	Tate Modern – Young Vic	2
C	Oxo tower – Lower Marsh	3
D	Waterloo Station – Houses of Parliament	3
	TOTAL	12

Survey Outcomes

Pedestrian counts

6.27 Overall, 102,000 people were counted across the seven count points on an average weekday. The weekend sees slightly fewer people, with 85,000 in total counted.

6.28 The busiest count point on a weekday was Sutton Walk, which was counted to include people leaving or arriving at Waterloo station from the South Bank. A total of 32,000 people were seen at this location over 12 hours.

6.29 At weekends, the Tate Modern count point saw the greatest volume of pedestrians (28,000 in one day), which was slightly higher than Sutton Walk.

6.30 The quietest count location was The Cut on weekdays (8,000 people) and Cornwall Road on weekend days (3,000).

6.31 The full count data can be found in Appendix A.11D1.

6.32 Comparing these counts to last year, in total, the volume of pedestrians counted has increased by 6% on weekdays, and by 9% on weekend days.

6.33 However, there was some variation by individual location. For example, as seen in the following charts, the volume counted at the Tate Modern has fallen slightly on weekdays compared to the pre-stage, while the Sutton Walk volume has increased by around 8,000 people.

6.34 On weekend days, the volume at Tate Modern has also dropped slightly, while the Belvedere Road volume has increased (by around 5,500).

6.35 The Tate Modern counts are likely to be affected by the closure of the Thames Path around Blackfriars due to works.

FIGURE 6.4 PEDESTRIAN COUNTS BY LOCATION - COMPARISON OF PRE- & POST-STAGES - WEEKDAY

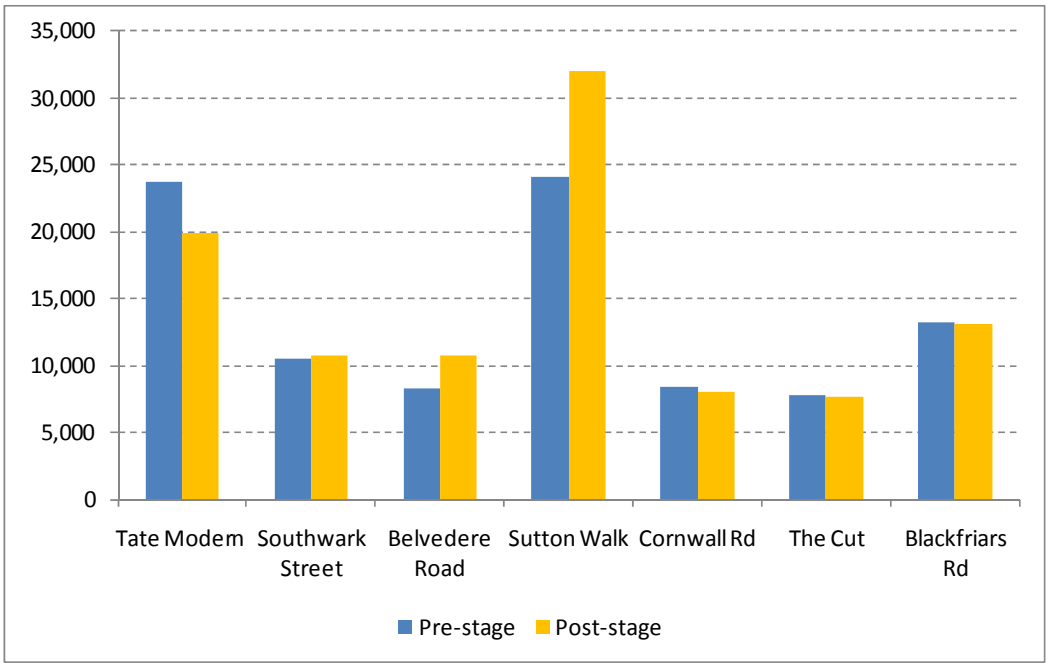
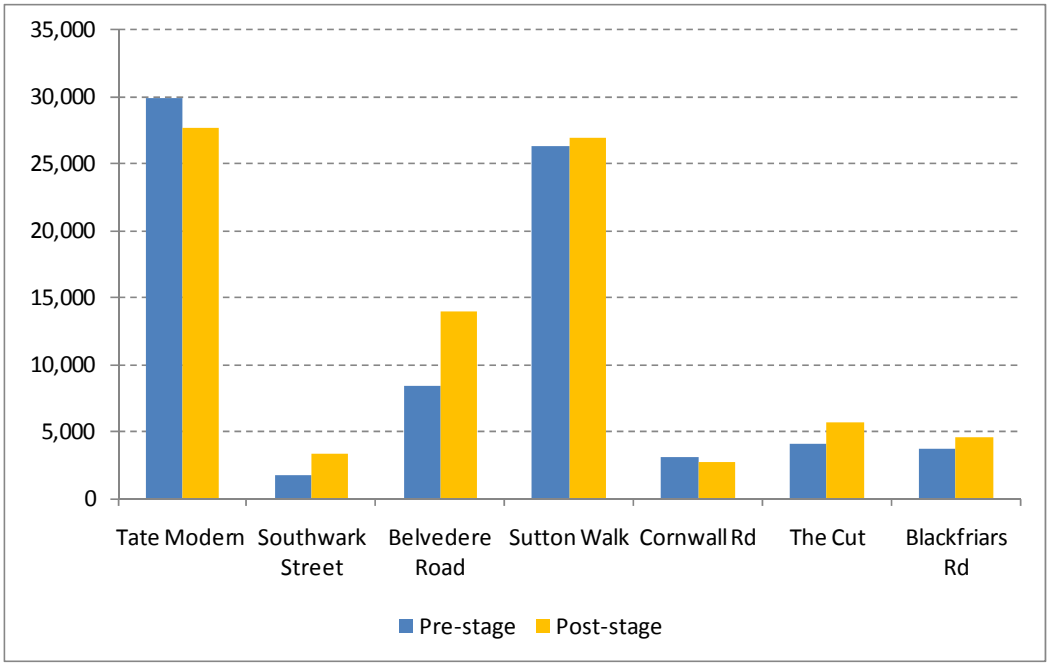


FIGURE 6.5 PEDESTRIAN COUNTS BY LOCATION - COMPARISON OF PRE- & POST-STAGES - WEEKEND



Observations

6.36 As well as counting all pedestrians at sites in the pilot area, two observational counts were conducted. These recorded people who stopped and looked at the Legible London monoliths in these locations.

6.37 The following charts Figure 6.6 and Figure 6.7 show the volumes of people using Legible London during the count day.

6.38 Figure 6.6 shows that the largest volume of people stopped at the monolith on The Cut (386 people or an average of 32 people per hour). This is directly outside the exit to Southwark Underground station.

6.39 The monolith outside Palestra was used by 95 people (or nearly 8 per hour on average). This compares to 23.5 per hour on Sutton Walk, and 4.4 per hour on York Road.

6.40 Overall, across the South Bank pilot observation counts, 816 people stopped to look at the monitored Legible London signage. This equates to 68 people per hour.

6.41 A quarter of these people stopped for less than 10 seconds, although around half stopped for between 10 seconds and 1 minute.

6.42 Sutton Walk was a location for both the pedestrian and observation counts, therefore it is possible to use the data to indicate a share of all pedestrians who are users. Overall, this equates to 0.9% of passers-by who stop and use the Legible London signage in this location. Figure 6.7 shows how this varies during the day. The share of usage rises to nearly 3% during the interpeak period, although this is when the volume of pedestrians is at its lowest. This is likely to be due to the types of people who use the signage (less regular visitors to the area).

FIGURE 6.6 OBSERVATION COUNTS BY LOCATION - WEEKDAY

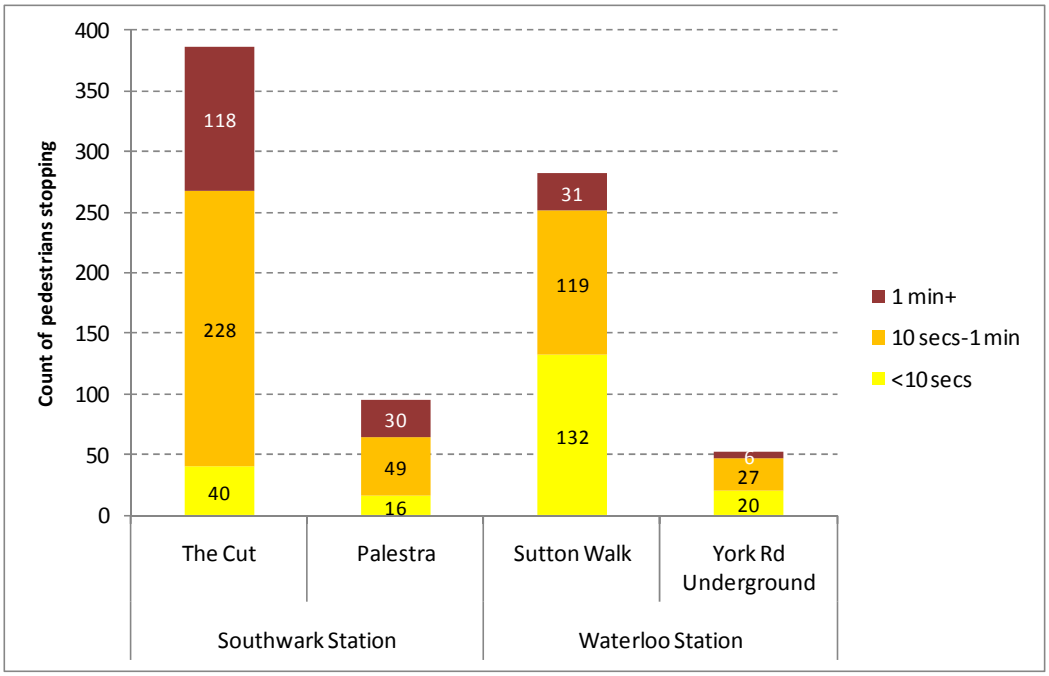
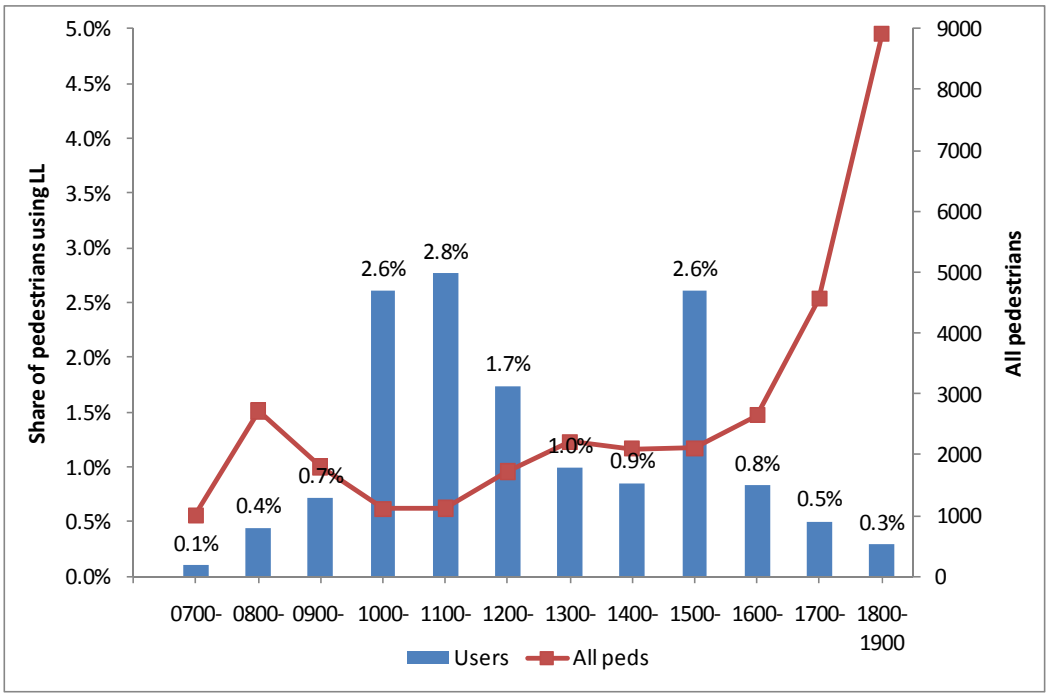


FIGURE 6.7 USERS AS A SHARE OF ALL PEDESTRIANS - SUTTON WALK - WEEKDAY



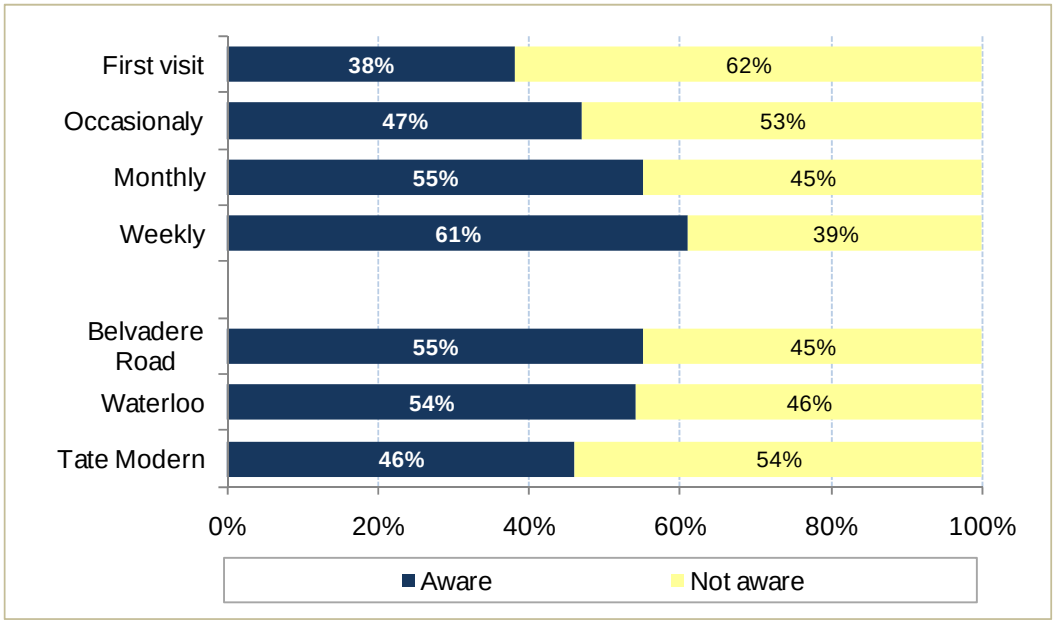
On-street user interviews

Awareness

6.43 Overall awareness of Legible London in the South Bank was 49%, though this did vary across the area, and was slightly lower around the Tate Modern. This may be connected with the profile of pedestrians in this area, with a higher proportion of visitors and tourists who were generally less aware than more frequent visitors; Figure 6.8 provides some further detail.

6.44 At Tate Modern, the majority of visitors (64%) were from outside London. This compares to around 60-65% of pedestrians being London residents at the other two sites.

FIGURE 6.8 AWARENESS OF LEGIBLE LONDON

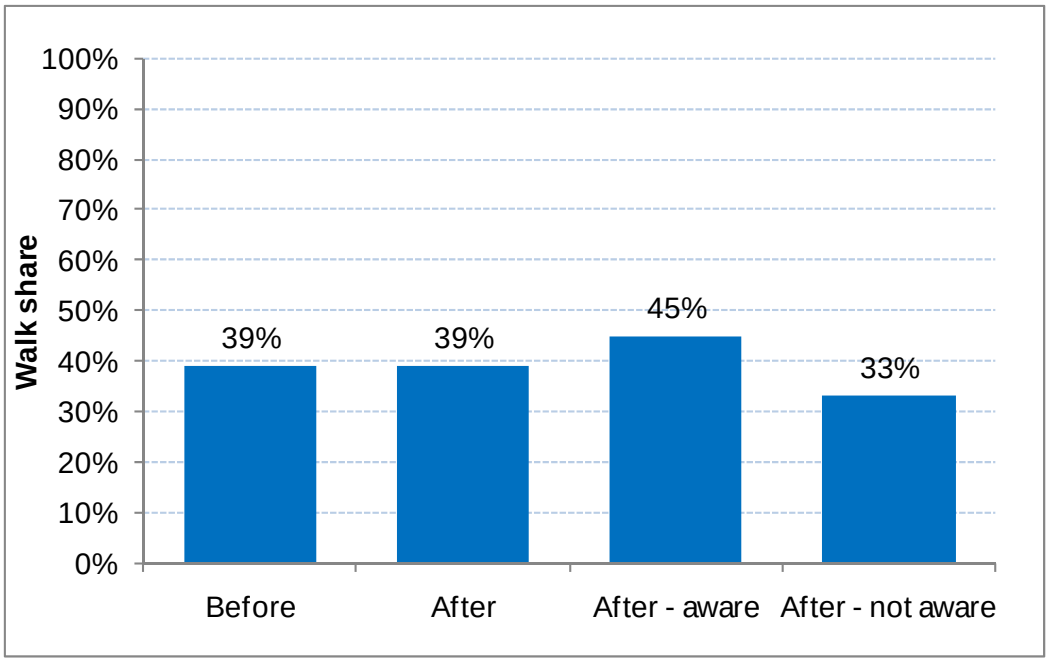


Base post-stage 370 (Not aware includes 'don't know')

Behaviour change and mode shift

6.45 The share of walking to get into the area has not changed between waves. However, amongst those aware of Legible London there was a higher proportion who walked to the area compared with those unaware, or indeed compared with the before survey – see Figure 6.9.

FIGURE 6.9 WALK SHARE FOR TRAVEL TO THE AREA

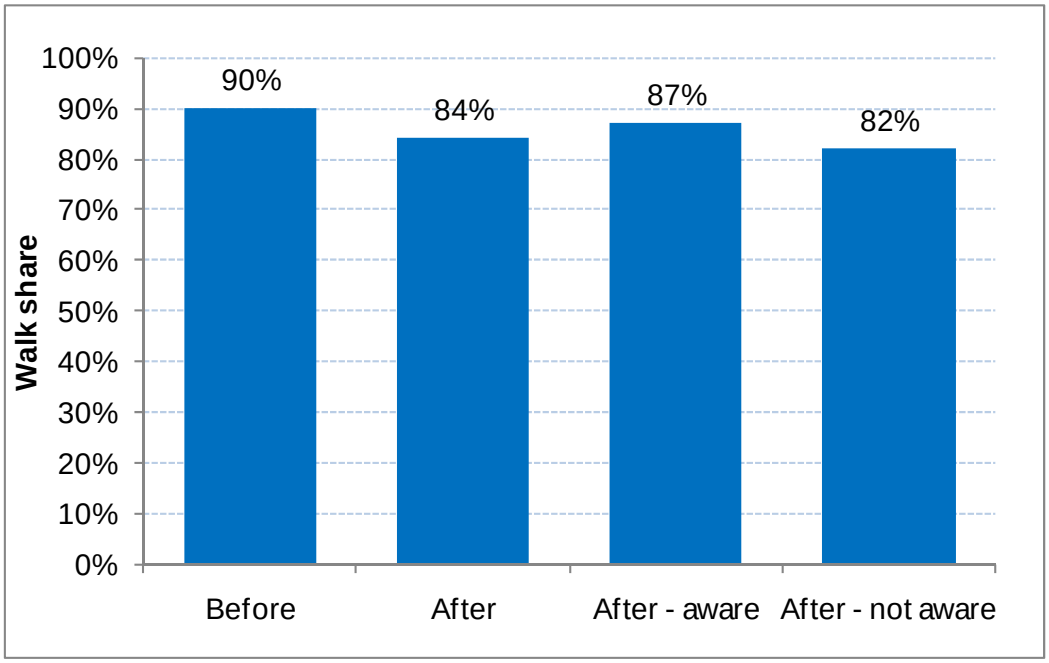


Base before 812, after aware 192, after not aware 171

6.46 The share of walking as a mode used while in the area significantly decreased from the pre-stage, although the majority of people still walk.

6.47 Splitting the post-stage by those aware and those not aware, shows that a slightly higher proportion of those aware of Legible London walked within the area (as evident in Figure 6.10).

FIGURE 6.10 WALK SHARE FOR TRAVEL IN THE AREA



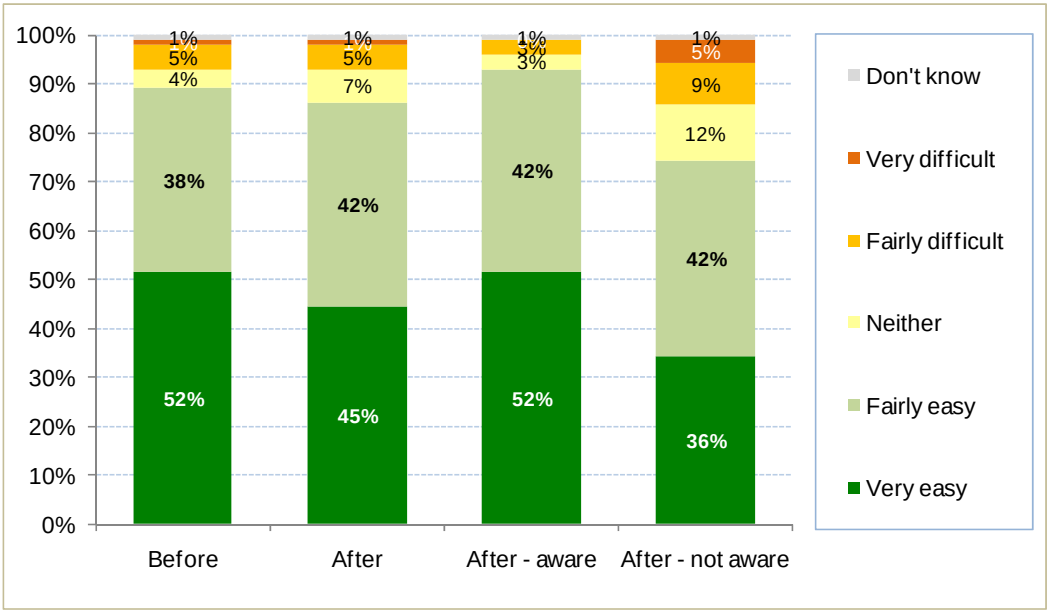
Base before 812, after aware 192, after not aware 171

Wayfinding

6.48 The proportion stating the ease of finding way around the area as very or fairly easy fell slightly when comparing the before and after stages (90% to 87%).

6.49 Amongst those aware of Legible London, 94% said it was very or fairly easy to find your way around the area by foot. This was a much higher proportion than those not aware (78%), and very marginally more than in the before survey: Figure 6.11 has the detail.

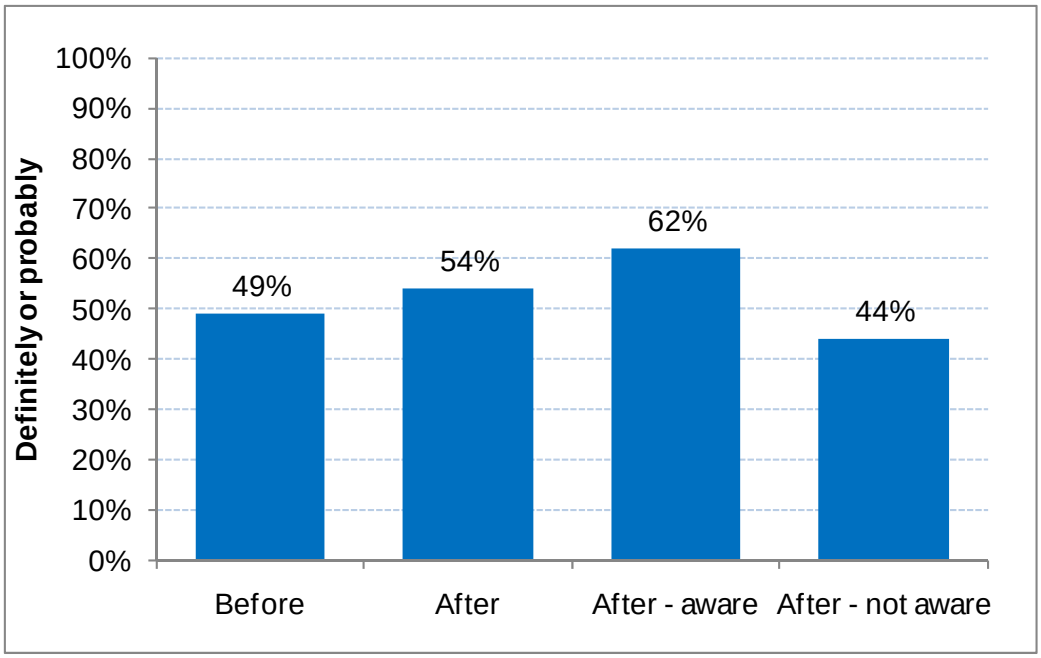
FIGURE 6.11 EASE OF FINDING WAY ROUND AREA BY FOOT



Base before 812, after aware 192, after not aware 171

6.50 An increase was seen in the share of people who said they would be able to find their way on foot. Those aware of Legible London were much more likely than those not aware to say they would know how to find their way to a specific destination (62% v 44%).

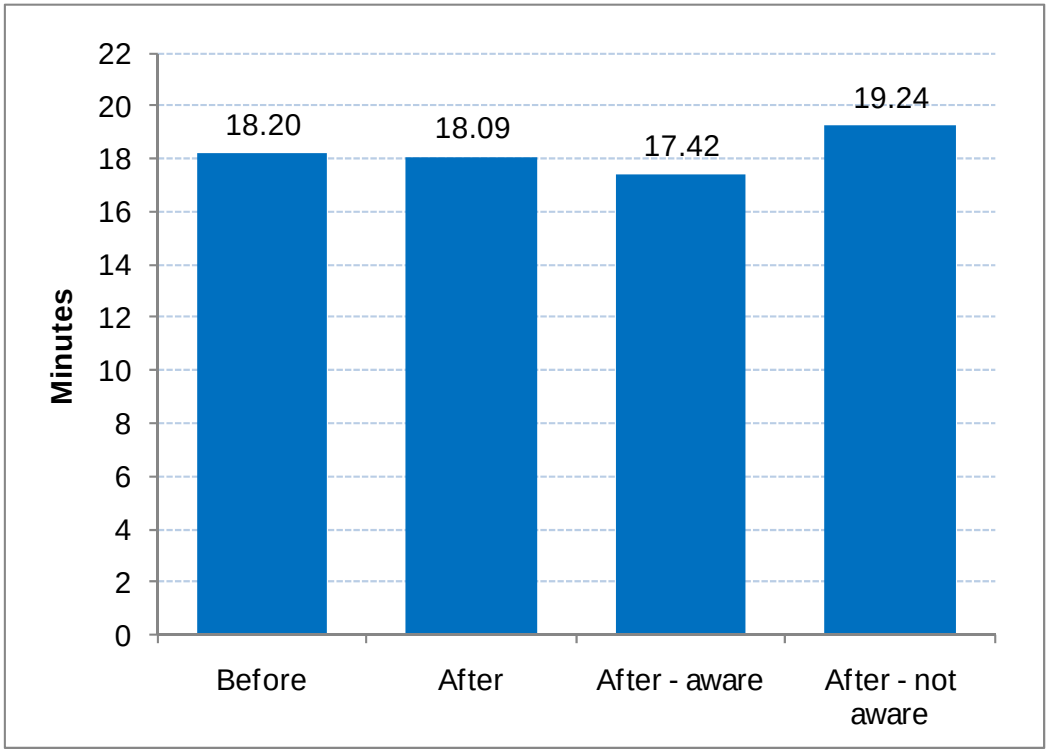
FIGURE 6.12 WOULD YOU KNOW HOW TO FIND YOUR WAY BY FOOT?



Base before 812, after aware 192, after not aware 171

6.51 As shown in Figure 6.13, amongst those not aware of Legible London the average estimated time to the defined destination was 19.2 minutes whereas amongst those aware of Legible London, it was 17.4 minutes. There was little difference comparing the before and after stages.

FIGURE 6.13 AVERAGE ESTIMATED TIME TO DESTINATION



Base before 812, after aware 192, after not aware 171

6.52 There were some differences in journey time estimating by route:

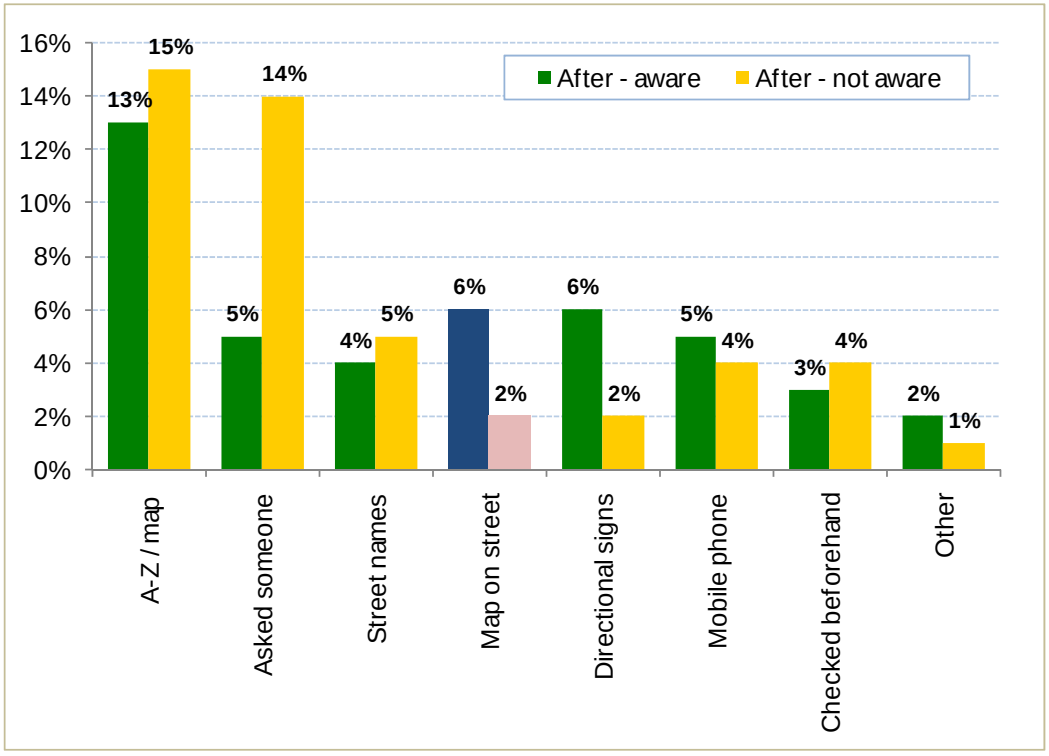
- At Tate Modern, respondents were asked to estimate walk time to the Young Vic. Only a fifth of respondents gave a time less than the expected[14], no one stated the expected time and the remainder (apart from 7% who stated 'don't know') said a time longer than the expected.
- From Waterloo respondents estimated times to Covent Garden, the vast majority (65%) underestimated the time it would take compared to the expected. Again, no-one gave the expected time.
- Respondents at the third site, on Upper Ground, were asked for times to Southwark Underground station. Two fifths of people underestimated the time, while the rest over estimated.

6.53 Overall it appears that those aware of Legible London are more likely to underestimate their journey times.

6.54 The information sources used by pedestrians are shown in Figure 6.14. This shows that amongst the aware group 6% used maps on the street (2% of the non-aware did so). It is particularly noticeable that those aware of Legible London were much less likely to ask someone for directions (5% did so, compared with 14% of the unaware group). This provides an indication of a possible effect of Legible London in helping pedestrians to feel confident enough to not need to ask directions.

6.55 Two fifths of people did not require any information, plus another 15% did not use any.

FIGURE 6.14 INFORMATION SOURCES USED



Base post-stage aware 192, not aware 171

[14] Times were taken from TfL's journey planner

6.56 In terms of information sources used on leaving a station (if the respondent arrived in the area by rail/ Underground), the largest shares of people did not require any information as they knew where they were going. Those not aware of Legible London were significantly more likely to ask someone for directions. In addition, a slightly larger proportion of those aware of Legible London used directional signage compared to those who were not aware, although this is not statistically significantly.

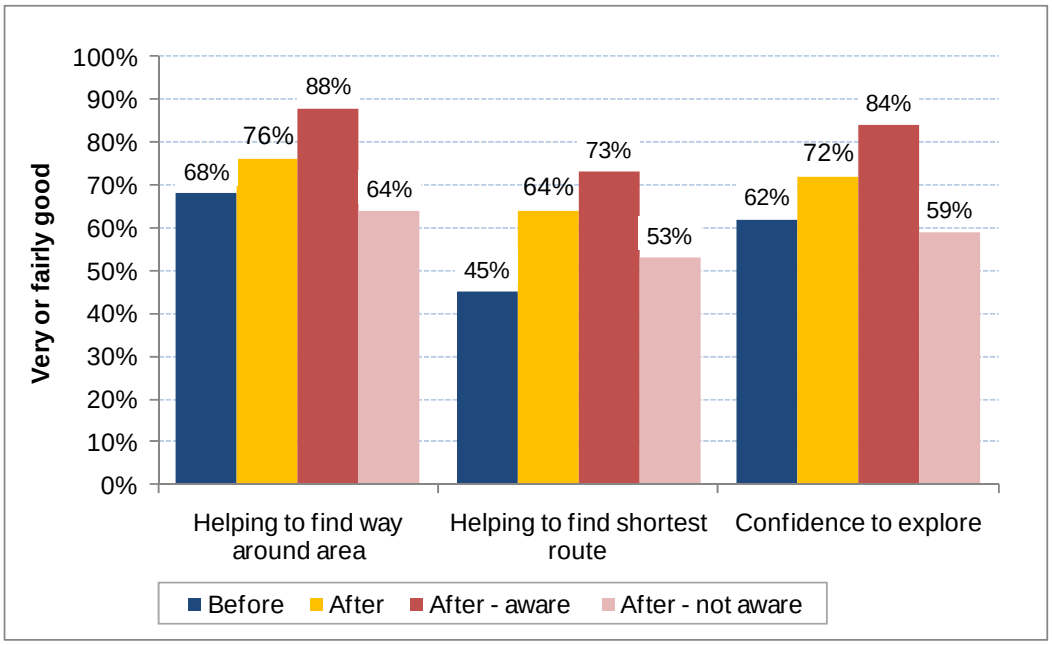
Attitudes

6.57 The on-street survey provides good evidence that Legible London has improved satisfaction with local signage, as illustrated in Figure 6.15.

6.58 For example, looking at the ratings for giving the confidence to explore, in the before survey 62% were satisfied (that is, gave a rating of very or fairly good), which increased to 72% in the post-stage.

6.59 A greater difference was seen between those aware and not aware; 84% of the aware group was satisfied compared with just 59% of the unaware group, illustrating the impact of Legible London.

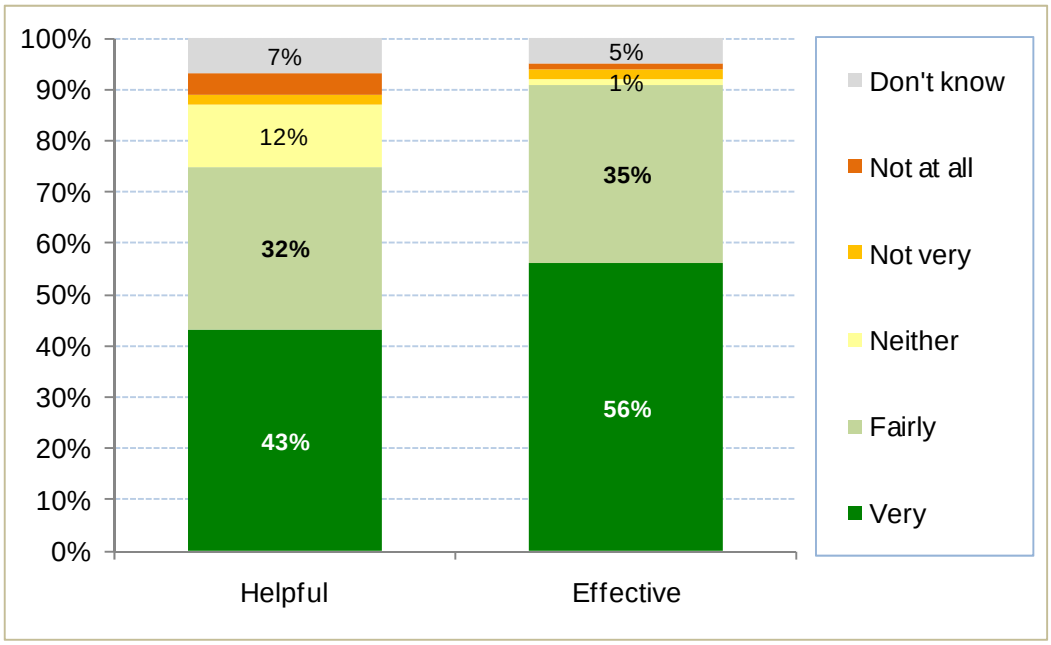
FIGURE 6.15 RATINGS OF LOCAL SIGNAGE



Base before 812, after aware 192, after not aware 171

6.60 When asked directly about Legible London, pedestrians were positive with 92% saying the signs are effective and 74% saying they are helpful (see Figure 6.16).

FIGURE 6.16 HELPFULNESS AND EFFECTIVENESS OF LEGIBLE LONDON

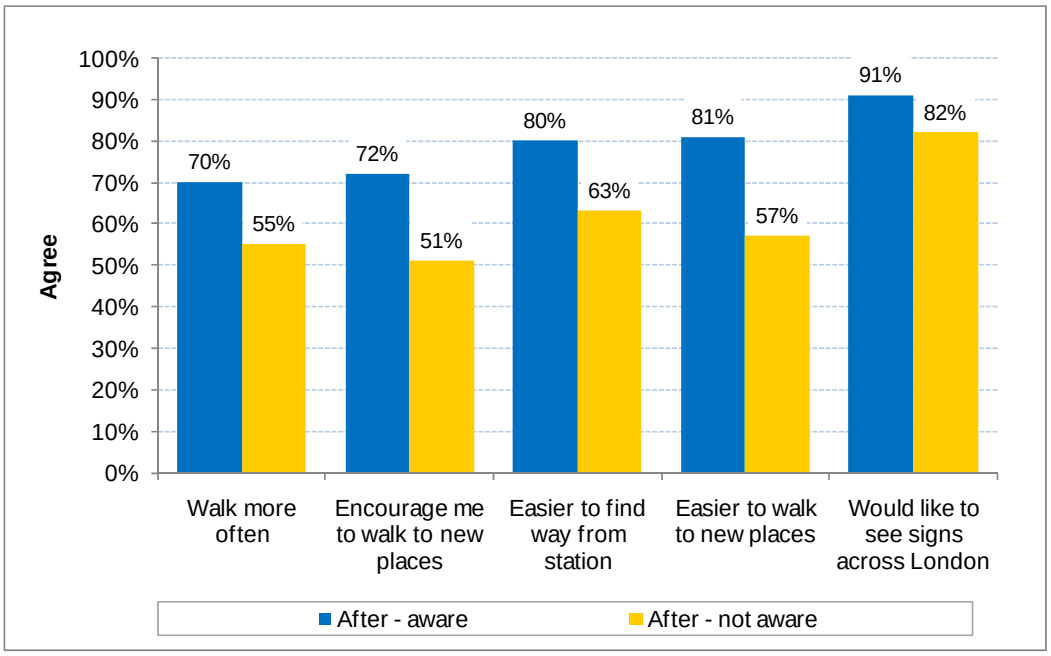


Base post-stage aware 192

6.61 A positive endorsement of the scheme is the vast majority of those aware (92%) who support the rolling out of the scheme in other parts of London. This is higher than amongst those who are not aware (82%), although this share is still high.

6.62 Generally, as seen in the following chart, for all statements those aware of Legible London were more likely to agree than those who were not aware.

FIGURE 6.17 ATTITUDE STATEMENTS



Base after aware 192, after not aware 171

Summary

TABLE 6.5 ON-STREET SURVEY KEY INDICATORS FOR SOUTH BANK

	Pre (2009)	Post (2010)	Difference
Awareness	n/a	49%	n/a
	% very/quite good	*% very/quite good*	
Signage for finding way around area	68%	88%	+ 20
Signage for helping to find shortest route	45%	73%	+ 28
Signage for giving confidence to explore	62%	84%	+ 22
	% definitely/ possibly	*% definitely/ possibly*	
Would you know how to find your way	49%	62%	+ 13
Estimated length to destination (mins)	18.2	17.4	- 0.8
		% Agree	
I would like to see Legible London across London	n/a	91%	n/a
Legible London encourages me to walk to new places	n/a	72%	n/a
		% Fairly / very	
Effective	n/a	91%	n/a
Helpful	n/a	75%	n/a
	%	*%*	
Walked to area	39%	45%	+ 6
Walked within area	90%	87%	- 3
Walk trip in area at least once a week	30%	44%	+ 14

Notes: Ratings of signage based on five point scale: very poor, fairly poor, neither good nor poor, fairly good, very good

"Would you know how to find your way" based on a four point scale: definitely, probably, probably not, definitely not

Attitude statements on a five point scale: agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, disagree strongly

Effective / Helpful on a five point scale: very, fairly poor, neither, not very, not at all

Ratings for post-survey based on respondents aware of Legible London only

PERS Audits

6.63 The PERS legibility audit of the South Bank pilot area identified the following key findings:

General impressions

6.64 The area around Waterloo train station is very busy with high flows of pedestrians, many bus stops, shops and vehicles.

6.65 There is high concentration of pedestrians around the bus stops along Waterloo Road, particularly around the bus stops, and around the IMAX roundabout.

6.66 As in the pre-stage, a number of lost people were observed in the pilot area who were asking directions to famous attractions. However, these attractions are included on the monoliths around Waterloo.

6.67 The IMAX subway system was seen as very confusing in the pre-stage.

6.68 Across the area, as well as Legible London monoliths and finger posts, there are a number of other signs scattered around the audit area.

PERS audit findings

6.69 In the pre-stage, signage was available but was inconsistent and intermittent, with some parts of the pilot area completely without signage. In addition, it did not include distance or time measurements.

6.70 The IMAX subway system in particular was found to be very confusing; there were finger posts at each entrance/exit to a subway and many additional signs within the subway system but these were not clear, pointed into several directions and caused confusion.

6.71 Since the pre-stage, the audit showed that signage has improved in terms of volume and the quality of the information. This has had a positive impact on legibility and wayfinding and its associated scores. The locations of the signage on the pavements were scored highly in terms of not causing obstructions.

6.72 Some old signage has been left in the area, which could be confusing for pedestrians. In particular, the IMAX roundabout still retains some old signage, although the Legible London signage has substantially improved the legibility of these links.

6.73 While information was previously patchy upon leaving Waterloo station, monoliths are now found at all exits. Routes tested between landmarks and Waterloo were more easily navigated by pedestrians using Legible London.

6.74 All links tested saw an improvement in scores, whether monoliths were present on the link or not, as the density of the signage meant that there would still be some nearby. This was also true of PTWA[15], as scores increased compared to the pre-stage if monoliths were nearby. In addition, where Legible London maps had been installed at bus stops, scores also increased.

6.75 The majority of the bus stops did not have shelters and so were harder to identify from a distance. Nevertheless, the brand image of all bus stops was visible and well placed and most of the bus stops were marked on other bus route maps in the area. Those bus stops that did not have shelter provided users with a small local map whereas the

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[15] Public transport waiting areas i.e. bus stops

majority of the sheltered bus stops had larger local maps (two had new Legible London maps) and bus route maps.

6.76 Two potential improvements were highlighted: although locations are clearly marked, bus stops letters/ numbers could be included on the Legible London maps to improve legibility; and the Young Vic could be included as a destination on more signage.

6.77 The changes in scores can be seen in the table below. Scores for all relevant measures have stayed the same or increased. The score for legibility has increased greatly.

TABLE 6.6 AVERAGE CHANGES IN PERS LEGIBILITY SCORES – SOUTH BANK

Parameters audited	Mean average 'before' score	Mean average 'after' score	Mean average change
Link: legibility	-1.5	+2.5	+4.0
Link: signage legibility for disabled people	-1.9	+2.6	+4.5
Link: pedestrian signage obstructions	+ 1.9	+1.9	0
PTWA: information to the waiting area	-0.1	+1.6	+1.7
PTWA: information at the waiting area	-0.4	-0.4	0
Route: legibility	-1.0	+2.6	+3.6

Scores from -3 to +3

6.78 Overall, in terms of wayfinding and legibility, there are a large number of signs, mainly provided in the form of Legible London monoliths, finger posts, information boards and wall mounted signs, consistently positioned around the South Bank area.

6.79 All of the routes assessed improved considerably, due to the installation of Legible London at key points along each route. This includes key routes from Waterloo Station to the Tate Modern, Southwark Station to the London Eye and Waterloo Station to Stamford Street (via Roupell Street and Hatfields).

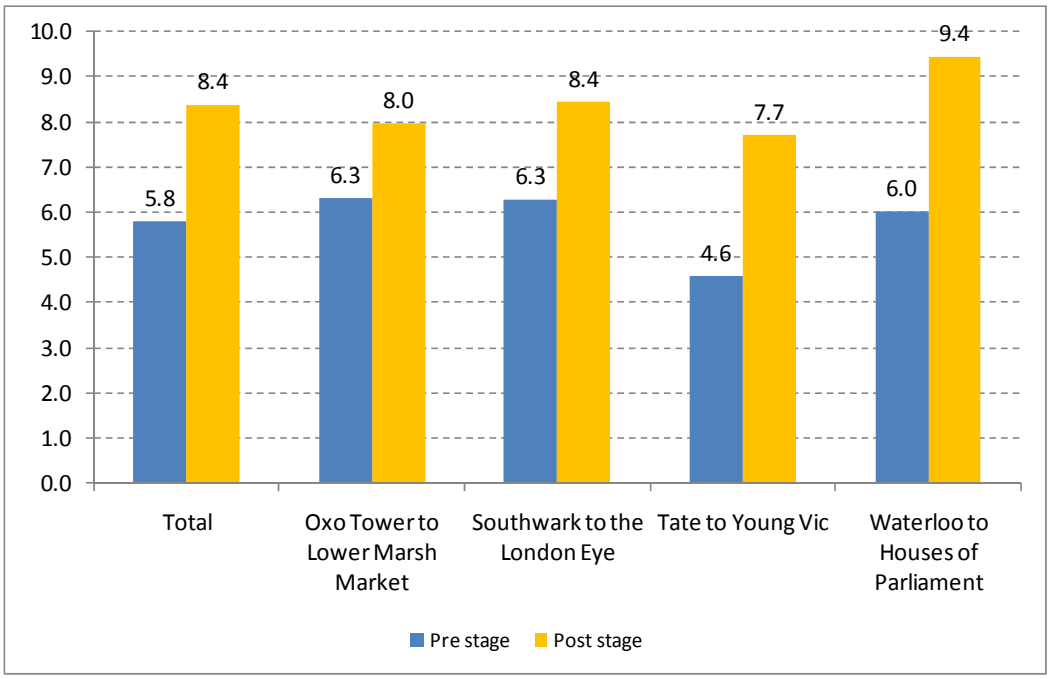
Mystery Shopper Journeys

This section is based on a small number of surveys and results should be taken as illustrative.

The mystery shopper journeys are designed to provide detailed feedback on the actual (rather than perceived) ease of wayfinding now compared with pre-implementation. While these surveys are not subject to the same type of random error/ variability inherent in customer surveys, the relatively small number of mystery shops should be taken into account and the results treated as indicative rather than definitive. The mystery shopper research is useful in providing a different perspective compared with the user surveys. For example, the on-street surveys are based on perceptions of how easy people think it is to navigate based on their experience, whereas the mystery shoppers are recording what actually happens.

6.80 The first chart (Figure 6.18) shows the overall mean satisfaction score for each of the four routes. Note that this is based on the average of the scores awarded at each point during the walk where a wayfinding activity was undertaken. Overall and for all four routes there was a notable increase in satisfaction between the before and after surveys. The highest post-implementation score was 9.4 (out of 10) for the Waterloo to Houses of Parliament route (up from 6.0), whereas the lowest score was a respectable 7.7 (up from a very poor 4.6).

FIGURE 6.18 MEAN SATISFACTION SCORES - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



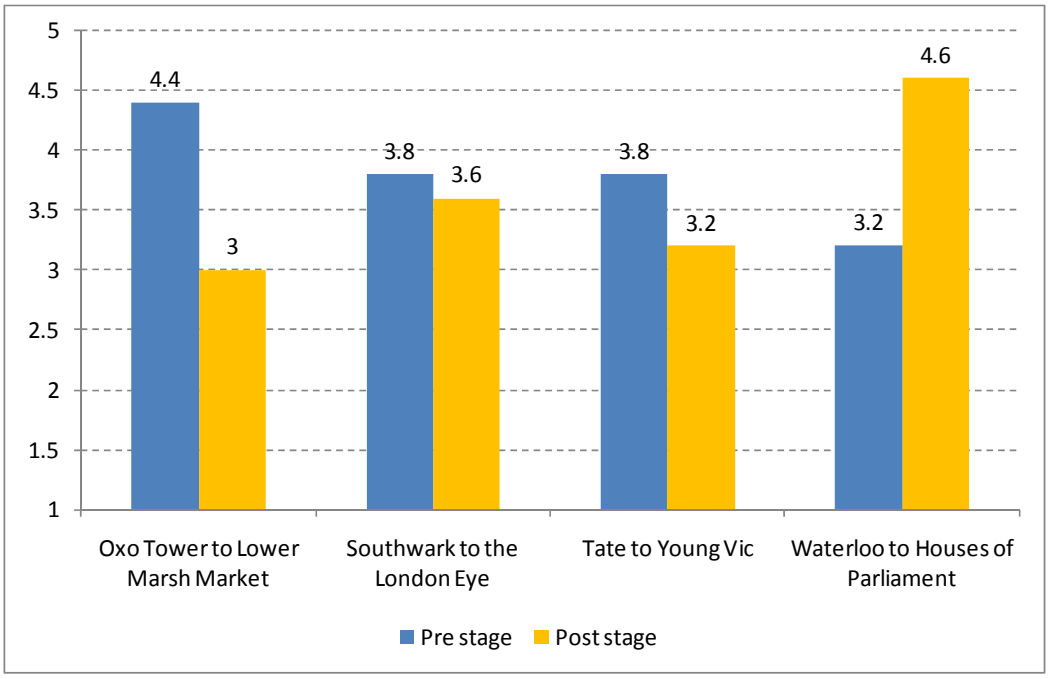
Base pre-stage 20 post-stage 20. Where 0 = dissatisfied, and 10 = satisfied

6.81 The following chart shows the scores for the ease of the wayfinding experience in the South Bank area. The post-implementation scores ranged from adequate (3.0 out of 5) to good (4.6).

Post-Stage Analysis

6.82 In the post-stage, the Waterloo to Parliament route was rated noticeably better than the others for ease, while in the pre-stage this was rated the least easy.

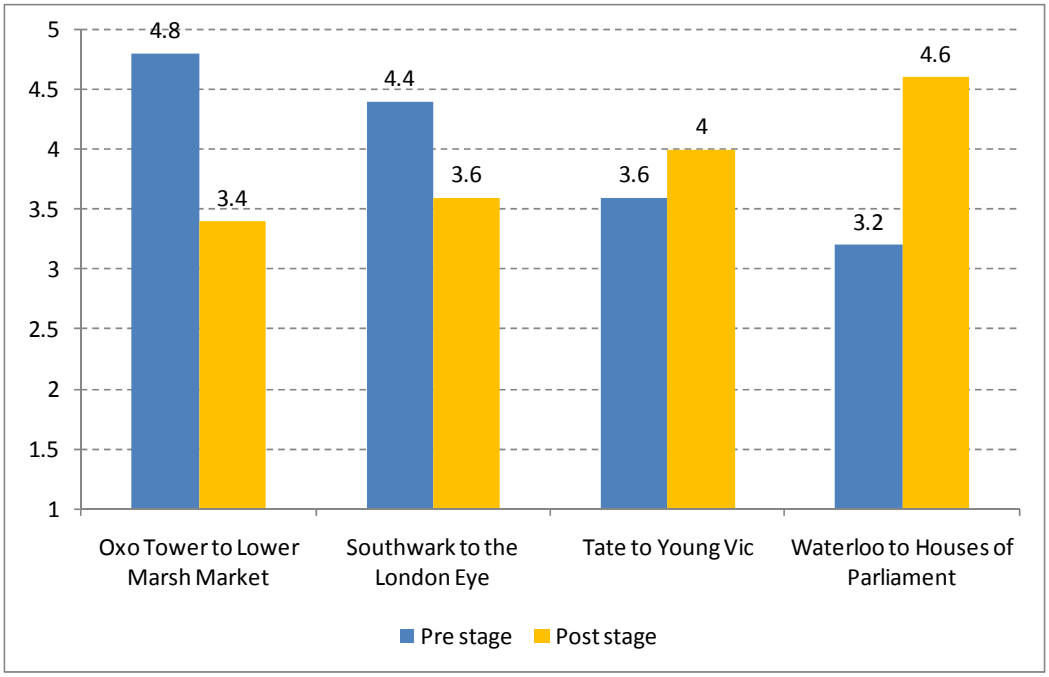
FIGURE 6.19 MEAN SCORE "OVERALL, HOW EASY DID YOU FIND IT TO FIND YOUR WAY?" - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



Base pre-stage 20 post-stage 20. Mean scores where 1 = very hard, to 5 = very easy

6.83 The quality of signs for pedestrians in the post-stage ranged from good (3.4 Oxo Tower to Lower Marsh Market) to very good (4.6 Waterloo to Houses of Parliament), as shown in Figure 6.20. There was a mixed picture in terms of differences between pre- and post-surveys, with two routes showing improvements but two apparently showing a deterioration.

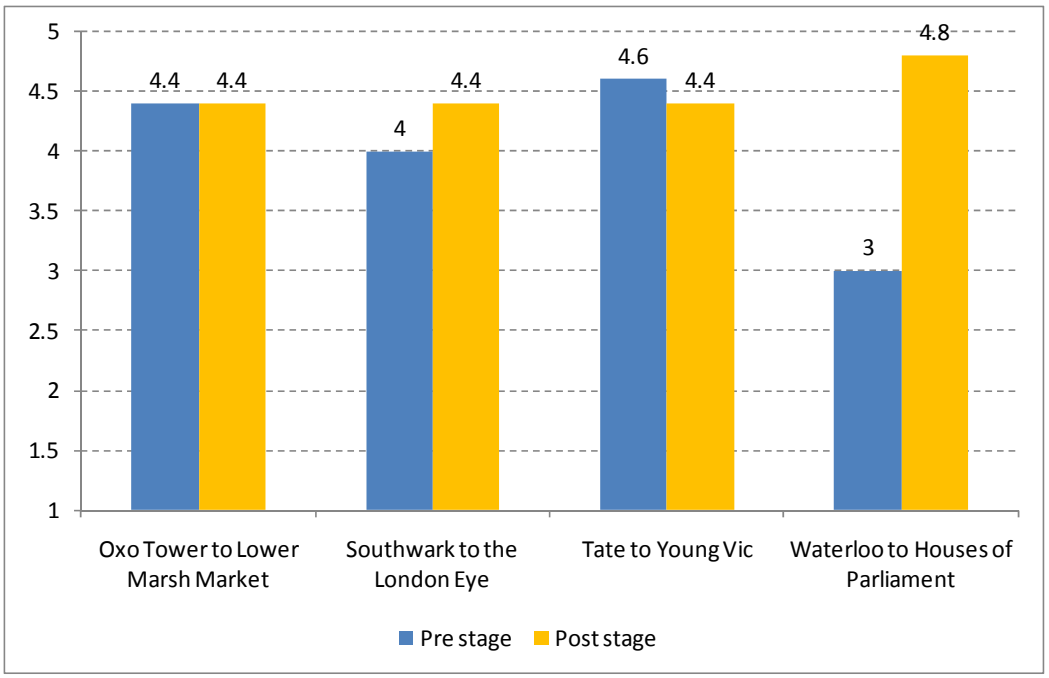
FIGURE 6.20 MEAN RATINGS OF THE QUALITY OF THE SIGNS FOR PEDESTRIANS - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



Base pre-stage 20 post-stage 20. Mean scores where 1 = very poor, to 5 = very good

6.84 The picture for the quality of maps (Figure 6.21) used was somewhat more consistent with three routes showing little difference between pre- and post-surveys but one route (Waterloo to Houses of Parliament) showing a big improvement.

FIGURE 6.21 MEAN RATINGS OF THE QUALITY OF ANY MAPS USED - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



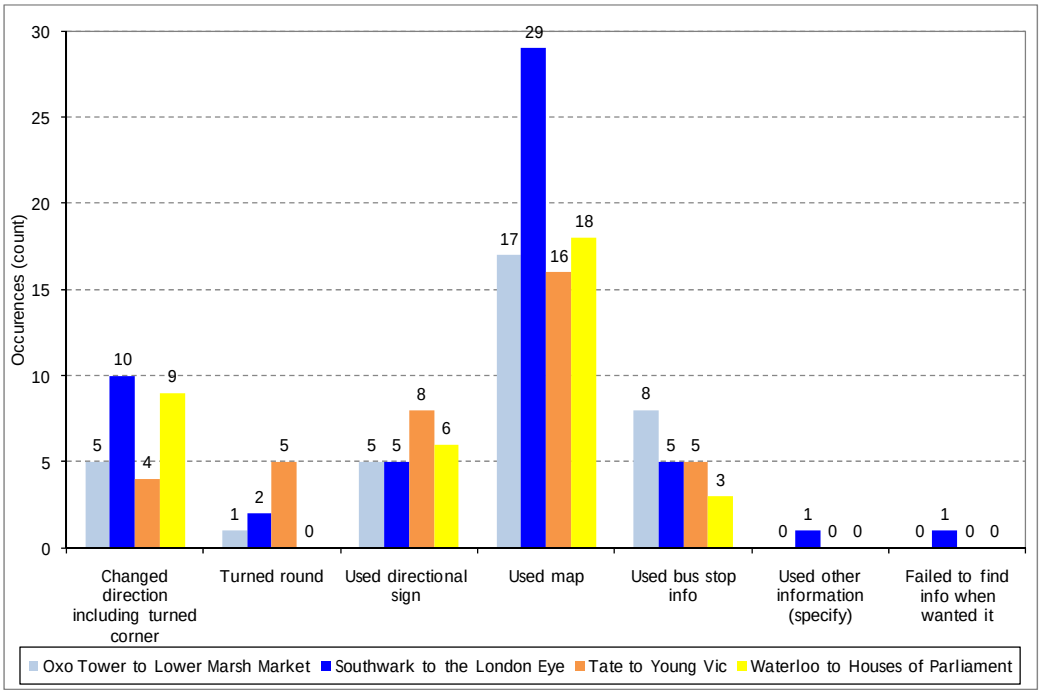
Base pre-stage 20 post-stage 20. Mean scores where 1 = very poor, to 5 = very good

Post-Stage Analysis

6.85 The following two charts (Figure 6.22 and Figure 6.23) indicate some of the key wayfinding behavioural actions recorded during the course of the mystery shopper journeys.

6.86 The chart in Figure 6.22 shows that the most common action in the after wave was using a map (4 occurrences per walk on average), followed by changing direction (1.4 occurrences) and using a directional sign (1.2 occurrences). There was only one mention of failing to find information, and 8 occasions in total where the respondent had to turn round.

FIGURE 6.22 WAYFINDING BEHAVIOURS RECORDED – BY ROUTE – POST-STAGE



Base post-stage 20.

6.87 Most of the occurrences of having to turn around were on the Tate Modern to Young Vic route. The difficulties were found around Tate Modern, with mystery shoppers walking part way along roads until they found information and then turned back.

6.88 The closure of part of the Thames Path may have caused additional confusion in this area.

6.89 The actual routes taken were recorded by respondents and can be seen in the Appendices. Some findings comparing these routes to the locations of monoliths:

- Walkers who went east from Tate Modern did not take a route where they were able to come across Legible London immediately.
- Those walking from the OXO Tower saw monoliths more immediately or used bus stop maps on Upper Ground.
- On leaving Waterloo, information was seen very quickly, with the location depending on the exit used.

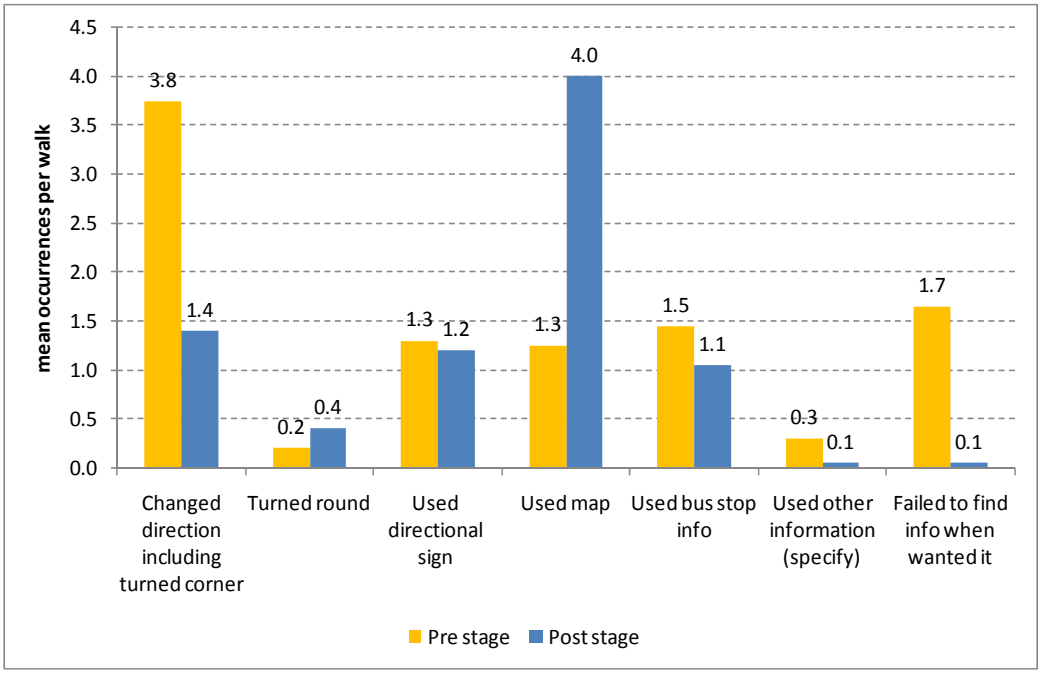
- Those who used the map directly outside Southwark station walked more quickly and directly to the London Eye.

6.90 There was only one location where information was not found (the junction of Blackfriars Road and Southwark Street). However, monoliths are in place at this junction.

6.91 A couple of comments were made regarding locations where signs were expected but not seen. The Blackfriars Road/ Southwark Street junction was mentioned again, and for the Waterloo to Houses of Parliament walk a location was mentioned when the respondent walked out of the pilot area (e.g. near Embankment station), in addition the Royal Festival Hall was mentioned.

6.92 There is a noticeable difference between the pre- and post-stages, with an average of 1.7 occasions per walk of failing to find information in the pre-stage (compared with just 0.1 after implementation). Also, an increase in use of maps is revealed. On average maps were used 2.8 times more per journey in the post-stage than in the pre-stage.

FIGURE 6.23 WAYFINDING BEHAVIOURS RECORDED IN PRE-& POST-SURVEYS



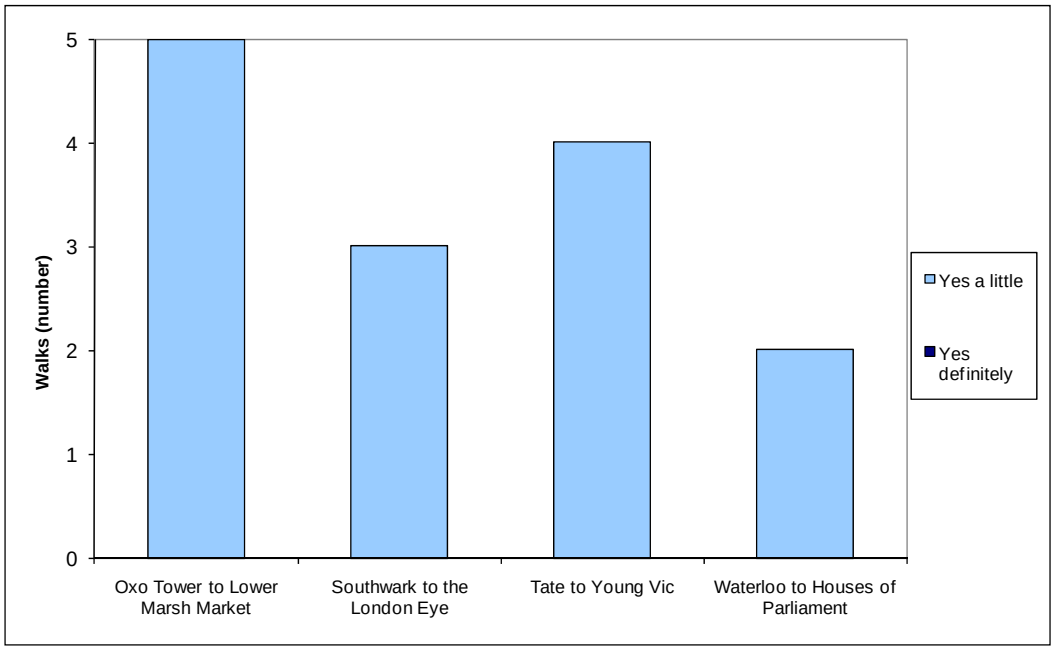
Base pre-stage 20 post-stage 20.

6.93 The next chart (Figure 6.24) identifies the number of mystery walks on which the researcher felt lost. On all the walks from the Oxo Tower the respondent felt a little lost at some point, however, it should be noted that no respondent stated that they felt definitely lost at any point, which reflects the low mentions of failing to find information/ turning around. Also, for this route, there were no occasions when mystery shoppers failed to find information and only one had to turn around.

6.94 In contrast, in the pre-stage survey (

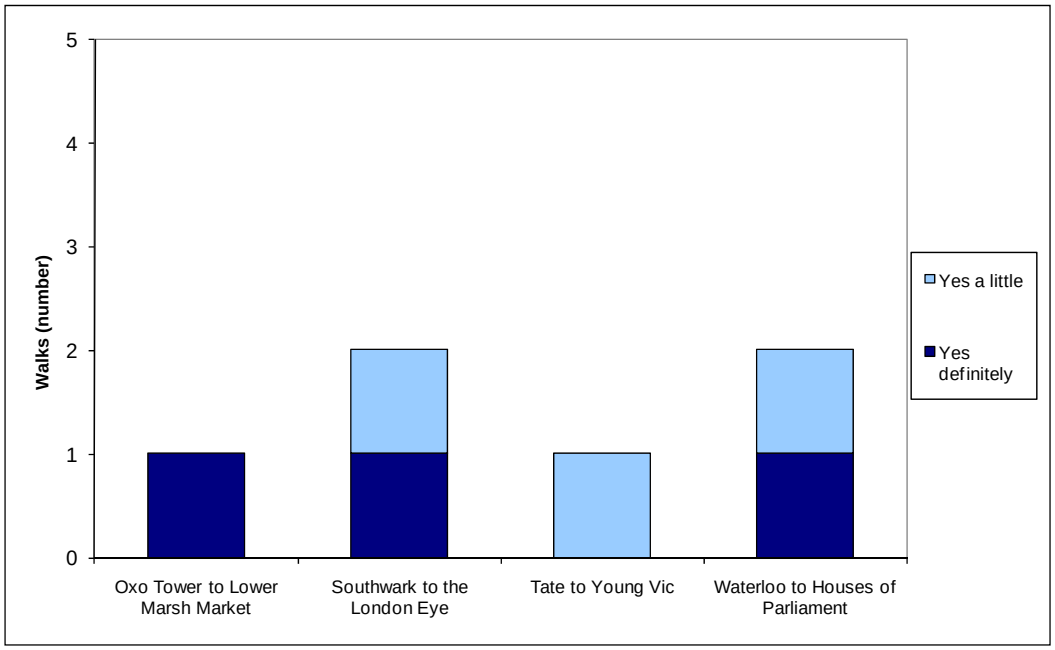
6.95 Figure 6.25) on all but one route (Tate Modern to Young Vic) one of the mystery shoppers definitely felt lost at some point.

FIGURE 6.24 WHETHER FELT LOST AT ANY POINT IN WALK – POST-STAGE



Base post-stage 20.

FIGURE 6.25 WHETHER FELT LOST AT ANY POINT IN WALK – PRE-STAGE



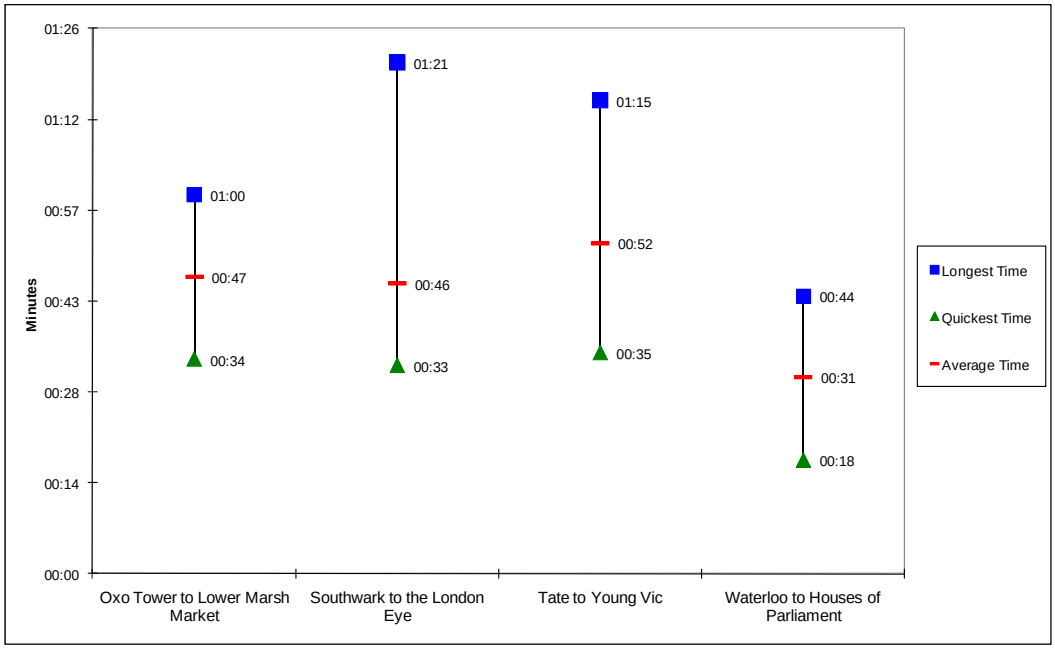
Base pre-stage 20

6.96 The range of times taken to walk the four routes in the post-stage is shown below. A wide range of times, such as the 33 minutes to 1 hour 21 minutes for Southwark to London Eye is indicative of one mystery shopper taking a circuitous route, although the range masks the recorded times of just over half an hour from 3 of the respondents completing this walk.

6.97 The Oxo Tower and Waterloo routes both had the smallest range of times at 26 minutes respectively.

6.98 The long (over an hour) times were seen for walks which took an 'incorrect' route i.e. walked in the wrong direction. A long walk was seen for the Southwark and Tate Modern routes, for both of these, it appears that failing to find information at Blackfriars Road/ Southwark Street junction led them to walk a longer route.

FIGURE 6.26 TIME TAKEN FOR MYSTERY WALK – BY ROUTE – POST-STAGE

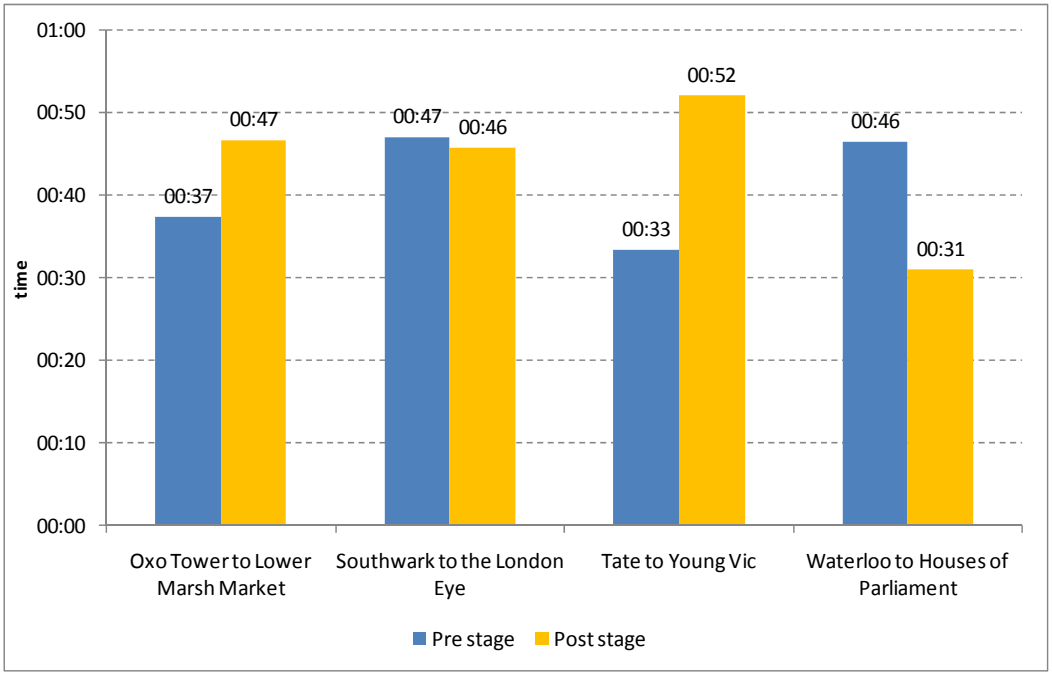


Base post-stage 20.

6.99 Comparing the mean times between the pre- and post-stages (Figure 6.27), shows that for two of the routes the time taken has increased in the post-stage, while for the Waterloo to Houses of Parliament route the average time has decreased in the post-stage. For the remaining route, there is no difference in time taken.

6.100 These averages mask difference in the range of times: for three of the routes (all but Tate to Young Vic) the longest time taken was shorter in the post-stage than in the pre-stage, and the range of times was much larger in the pre-stage.

FIGURE 6.27 AVERAGE TIME TAKEN FOR MYSTERY WALK - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



Base pre-stage 20 post-stage 20.

6.101 Mystery shoppers were asked how their journey time compared to expectations; positively the score has increased from 3 out of 5 (where 1 is much longer than expected and 5 is much quicker than expected) to 3.5.

Legible London specific questions

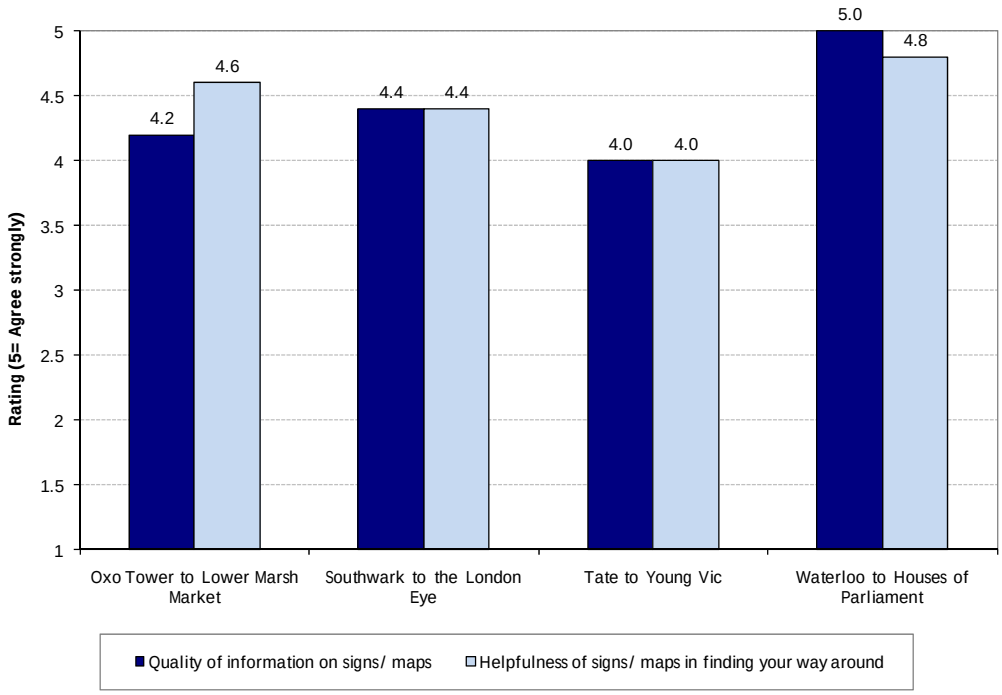
6.102 In the post-stage, mystery shoppers were also asked a series of direct questions about Legible London. They were not shown this before their walk, so they would not be prompted into noticing the scheme.

6.103 All respondents completing walks in the South Bank area said that they had seen and used Legible London during their walk.

6.104 In total, five (25% of walks) stated that there was a point in their journey when they expected to see information but did not. Three of these were walking between Waterloo and Houses of Parliament (note though that the ease of navigating this route was given a high satisfaction rating, as in Figure 6.19).

6.105 Overall, scores for the quality and helpfulness of the information provided was rated very highly, with all scores at 4 or more (out of a maximum of 5).

FIGURE 6.28 MEAN SCORES FOR QUALITY & HELPFULNESS OF INFORMATION – BY ROUTE – POST-STAGE



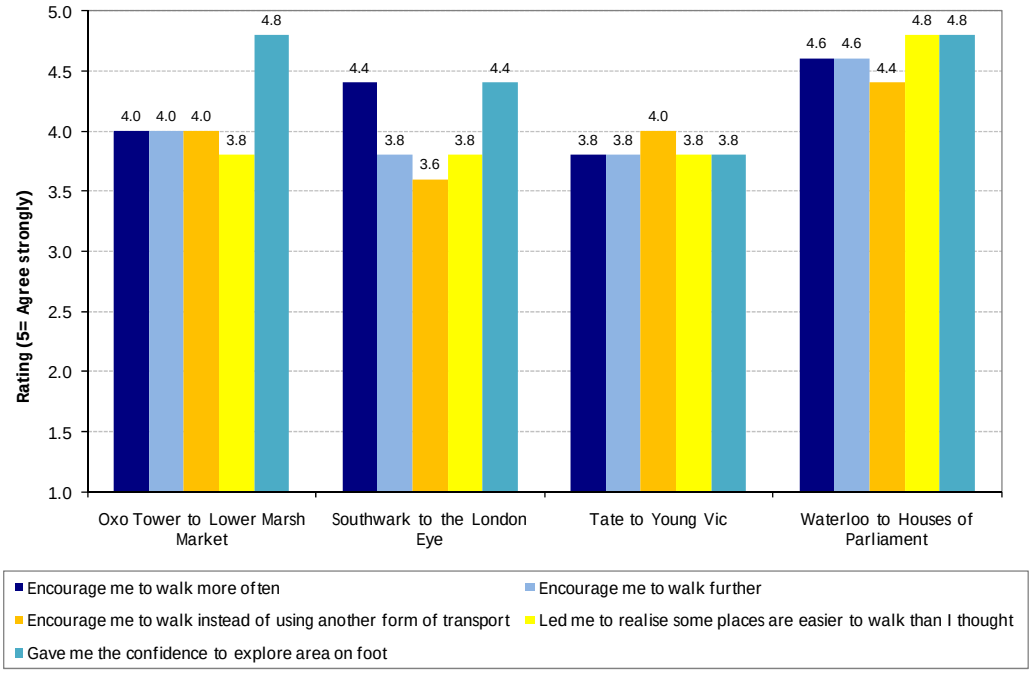
Base post-stage 20.

6.106 Mystery shoppers were also asked to rate their agreement with a number of statements relating to the impacts of Legible London. As seen in the following chart (Figure 6.29), all the statements were rated at 3.6 or more (out of 5).

6.107 Agreement was particularly high for those taking the Waterloo route, although overall there was some variation between the routes. The statement 'the signs and maps give me the confidence to explore this area on foot' was rated highest for three of the routes.

6.108 The lowest rated statement overall was 'the signs and maps in this area encourage me to walk instead of using another form of transport'.

FIGURE 6.29 AGREEMENT WITH STATEMENTS ABOUT SIGNS AND MAPS IN THE AREA – MEAN SCORE BY ROUTE – POST-STAGE



Base post-stage 20

Summary of mystery shopping baseline results

6.109 Some of the key indicators from the mystery shopping survey are provided in the table below. This shows the change in the key measures between the pre- and post-stage. The table also shows some of the key measures from the post-stage and highlights the positive change since implementation.

6.110 The mystery shopping surveys show an improvement in general wayfinding ability, as the respondents recorded fewer occurrences of failing to find information and of feeling definitely lost.

6.111 Stated awareness and usage of Legible London, once prompted post-walk, was universal, and the count of occurrences of using maps during the walk also increased.

6.112 The average journey time did not vary between the pre- and post-stages, but the range of times decreased as did the length of the longest walks.

6.113 There were some measures which did not change positively, notably the quality of the signs did not increase.

FIGURE 6.30 MYSTERY SHOPPING KEY INDICATORS – COMPARISON OF PRE- & POST-STAGES

	Pre-stage	Post-stage	Difference
Overall satisfaction (out of 10)	5.8	8.4	+ 2.6
Quality of the signs (out of 5)	4.0	3.9	- 0.1
Quality of any maps (out of 5)	4.0	4.5	+ 0.5
Definitely felt lost at some point (% of walks)	15%	0%	- 15
Failed to find information when needed (occasions)	33	1	- 32
Had to turn around (occasions)	4	8	+ 4
Time taken	00:41	00:41	0

Accompanied journeys

6.114 Legible London was used for most of the accompanied walks, apart from those people who knew the route without requiring any information. Some respondents knew the rough location of their destination (amongst those who walked to Houses of Parliament or London Eye), and were able to see their landmark from a distance aiding navigation.

6.115 Respondents walking to Lower Marsh struggled to find this marked on monoliths used around Upper Ground. This route appears to have been the most difficult for respondents.

6.116 A couple of examples of information finding behaviour on the walks included:

- Assuming the direction and ending up following a sign to a route which they had wanted to avoid (through the underpass near Waterloo);
- Walking with some confidence at beginning of the route and searching for information further on to confirm what they thought and add confidence;
- Requiring information directly on departure from start to indicate direction.

6.117 One participant had previously thought that the monoliths were related to sightseeing buses.

6.118 On walks normally, other information would be used including mobiles, A-Z maps and relying on the people you are with to know. Information at stations and bus stops were also mentioned as reliable sources.

"If I could I would have asked for direction from people (that's what people normally do)" (Waterloo to Houses of Parliament)

6.119 A number of gaps in information were highlighted by respondents e.g. Hopton Street/ Southwark Street junction, Great Suffolk Street, York Road/ Shell Centre exit from Waterloo.

6.120 A few respondents commented on the need to remember the route, as when first used they were unaware that more information would be available further on.

"it's excellent – the maps are easy to read and I find maps hard to read normally! It was great that I could check the route throughout the journey" (Southwark to London Eye)

"[I] would want to know that they were going to be along the whole route" (Southwark to London Eye)

6.121 One respondent used the stations marked on the maps as reference points for his journey, so he could confirm he was going the right way.

6.122 Some looked at further monoliths to check once they were walking although they knew the route, to provide confidence that they are going the right way.

6.123 The monoliths were not felt to be cluttering the streets, and in a couple of locations they were felt to be slightly too set back (one specific example was near Bernie Spain Gardens on Upper Ground).

6.124 The potential impact of additional information was mentioned by one respondent before they started their walk, and before learning about Legible London:

"I might walk more if there were signs with distance indications and timings, or if bus routes and times were improved" (Tate Modern to Young Vic)

6.125 Once they had completed their walk, respondents were asked about the impact of the scheme (and were shown a monolith if they had not already seen one). A number of positive comments were made, including that this would make walking more interesting, that it would be used to see what else is around and that they would walk more if knew the scheme was in the area.

"Yes, it might make you more inquisitive by highlighting different parts. There are some buildings highlighted that I didn't realise were around here, or some that I haven't heard of that I might want to go and look at. I might walk instead of taking the tube if I knew there were lots of these maps about." (Oxo Tower to Lower Marsh)

"Yes, you'd know where you were going. You wouldn't be scared about getting lost if you knew these were all over the place" (Tate Modern to Young Vic)

"Yes I would walk further as it puts places in perspective as you can see how near they actually are to where you are" (Waterloo to Houses of Parliament)

"These 15 minute and 5 minute zones surprise me. Maybe I'd find out that something was much closer than I thought" (Waterloo to Houses of Parliament)

6.126 Of those who said there would be less impact, this was generally because they knew their way around and needed no information, or because they would always pre-plan a journey.

6.127 One respondent was not completely impressed, as he thought it was 'a waste of money' but said that as it is there he would probably use it. He did concede that it helps as other information is not required (e.g. carrying an A-Z around).

"I like to discovered things by myself, if not I'll ask people for directions" (Waterloo to Houses of Parliament)

6.128 The style of the maps themselves was very positively received; one person said "8 out of 10, very clear and helpful!". However, a couple of people mentioned difficulties in associating the two scales of map.

6.129 Participants were generally unaware that the monolith had two sides with different maps, but this was seen as a good idea once it was pointed out:

"I didn't realise there were maps on both sides, but I don't think it is important that one person realises there are maps on both sides as all the information you need can be taken from one side, but it means that it's more likely to be used if a map is on either side" (Waterloo to Houses of Parliament)

6.130 The 'heads up' style of map was considered to make it easier, and the maps are clear to read. There was some confusion when used alongside other maps on street (those that are not heads up). One solution would be to add a north arrow to the map to show immediately the direction of the view. This would also help when using alongside an A-Z/ mobile mapping.

"I really like this - I always hold the map to the way I go so this is a great idea...

It's very clear considering the amount of things which are shown" (Southwark to London Eye)

6.131 Legible London is visible once pedestrians are aware of it:

"You can see the yellow in the distance"

6.132 It was suggested spontaneously by a couple of participants that the monoliths should say 'map' or 'guide' on the top band.

6.133 Once prompted about it, it was felt that the maps would need lighting as "it's already a dark map". Although this was not mentioned spontaneously.

6.134 A number of other specific improvements mentioned:

- Would like to see TfL logo – would give confidence in information;
- More bus information;
- Landmarks should be better highlighted on the 15 minute map;
- The side of the monolith could be used for additional/ basic information;
- A digital/ interactive element was requested, so that pedestrians would find it easier to search for their destination.

7 Survey Detail Clear Zone

Key findings

7.1 The implementation of Legible London in the Clear Zone appears to have improved pedestrians' perceptions. There is also a general consensus that the signs and maps in the area help to encourage walking and also make it easier to walk to new places.

7.2 While pedestrians state that the scheme helps them to wayfind, the

Awareness

- Around half of pedestrians are aware of Legible London. This share is higher amongst those who visit more often.
- Amongst those completing mystery shops or accompanied journeys, the majority found and used Legible London.
- At the busiest surveyed monolith in the pilot, an average of 40 people per hour stopped to use it.

Building confidence

- Generally people were very positive towards all aspects of the scheme, particularly those aware of it.
- A majority agreed that the signs give them the confidence to explore the area on foot, with this proportion being significantly higher in the post-implementation survey and amongst those aware of Legible London.
- In the mystery shops, the number of occurrences of people feeling lost has dropped.

Legibility and clutter

- The PERS surveys provide quantitative data on legibility. Both routes and links were rated much higher in the post-stage than before.
- The scores fell where the routes went outside the area where the signs are implemented.
- Clutter was not seen to be an issue, with the score unchanging. Across the other surveys, clutter was not mentioned as a problem.

User perceptions

- Those aware of Legible London are significantly more likely than those unaware to feel the signage is good for helping them to find their way around locally, gives them the confidence to explore the area on foot and agree the signage helps them to find the shortest distance to destinations.
- They also rate the scheme highly in terms of being helpful and effective.
- In the mystery shops, satisfaction scores were seen to be higher when the respondents had seen and used Legible London through their journey.

- In the accompanied journeys, satisfaction fell when users could not find information.

Reduced journey times

- Perceived journey times had increased slightly compared to the pre-stage. However, they are shorter amongst those who are aware of Legible London.

Mode shift

- The claimed level of walking has increased both to and within the area. In addition, use of Underground and bus within the area have decreased.
- However, the number of pedestrians counted was virtually the same in the after as in the before survey.

7.3 The following table shows the key indicators for the evaluation, and how they have changed since the pre-stage. In addition, a number of indicators from the post-stage have been included.

TABLE 7.1 RESULTS OVERVIEW – CLEAR ZONE

All pilots	Source	Pre-stage	Post-stage	Change
Awareness of Legible London				
Awareness of Legible London (% aware)	A	-	52	-
Saw Legible London on walk (% of walks)	B	-	80	-
Information sources used (% of pedestrians using information)	A	-	60	-
Change in attitude (confidence & user perception)				
Ease of finding way (% very/ fairly)	A	84	79	-5
Satisfaction: effective (% very/ fairly)	A	-	94	-
Satisfaction: helpful personally (% very/ fairly)	A	-	84	-
Satisfaction: finding way around area (% very/ quite good)	A	57	73	+16
Satisfaction: finding shortest route (% very/ quite good)	A	42	61	+19
Satisfaction: giving confidence to explore (% very/ quite good)	A	52	64	+12
Perception of journey time (average expected walk journey time, mins/ standard deviation)	A	14.17/8.59	12.2/6.44	-1.97mins
Failing to find information (count of occasions)	B	53	7	-46
Definitely felt lost at some point (% of walks)	B	32	12	-20
Would like to see rolled out across London (% agree strongly/ agree)	A	-	91	-
Change in behaviour				
Encourages me to walk more often (% agree strongly/ agree)	A	-	73	-
Encourages me to walk to places I wouldn't have done before (% agree strongly/ agree)	A	-	69	-
Walked within area (%)	A	28	35	+7
Walked to area (%)	A	45	51	+6
Volume of pedestrians (total pedestrians weekday 7am-7pm, 7 sites surveyed)	C	127,253	128,210	+581
Volume of use of signs (average users per sign weekday 7am-7pm, 4 monoliths surveyed)	C	-	341	-
User feedback	E	"Yes, I will look for my way with Legible London map and walk instead of using PT, which will help to save money"		
Legibility and clutter				
Link legibility *(rated -3 to +3)*	D	-1.3	+2.3	+3.6
Pedestrian signage obstructions *(rated -3 to +3)*	D	+2.5	+2.5	0
Quality of signs (out of 5)	B	3.0	3.2	+0.2
User feedback	E	"They are visible, but don't get in the way"		

Table notes:

* Significantly different at 95% confidence level

Sources: A On-street surveys; B Mystery shopping surveys; C Pedestrian counts; D PERS audits; E Accompanied walks

Note: post-implementation results for on-street surveys are for those aware of Legible London

7.4 As well as the overall objectives, the Clear Zone area pilot aims to:

- Encourage people to walk between the Underground stations in the area, by showing that their journey could be quicker on foot
- Reduce walking times to nearby attractions, such as the British Museum
- Encourage walking between central London's neighbouring villages

7.5 These objectives have been tested in the study, with the results as follows:

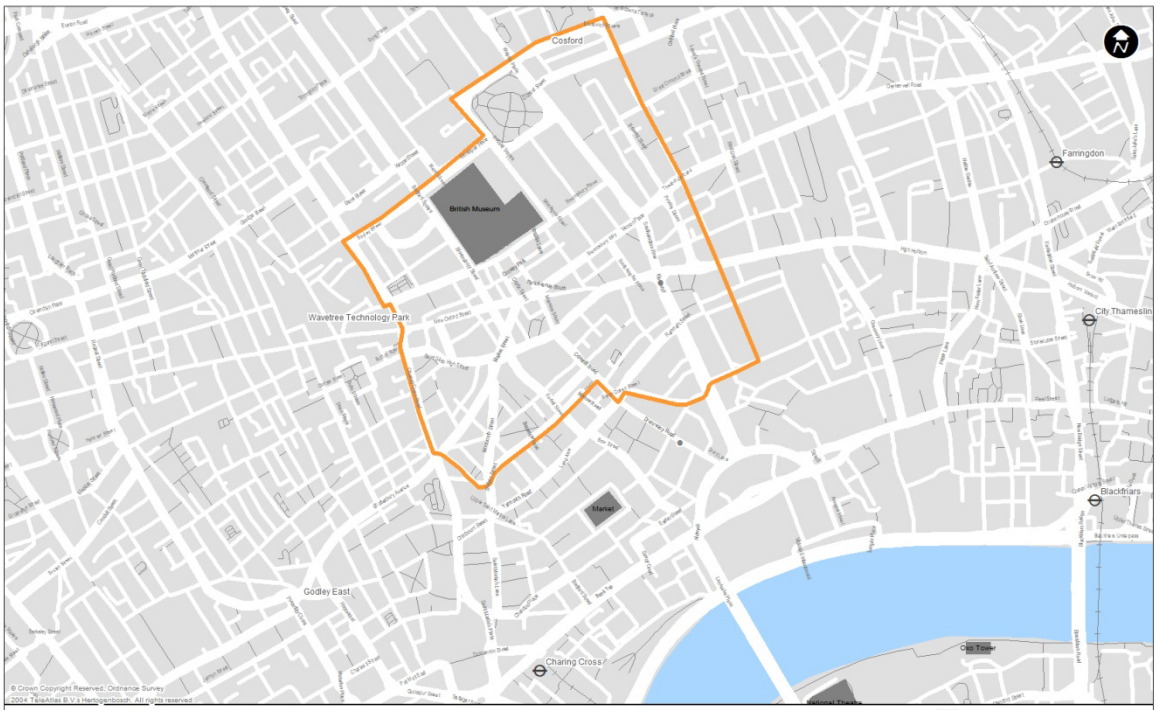
- People appear to be encouraged somewhat to walk between Underground stations, as there was some evidence of mode shift away from Underground for trips in the area. The on-street surveys showed 19% of people in the pre-stage used Underground to travel within the area, compared to 10% in the post-stage.
- The evidence for the impact on walk times is less conclusive. In the mystery shops, the average walk time did not change when compared to the pre-stage, although for a couple of routes the time was shorter since implementation.
- Pedestrians who are aware of Legible London estimated slightly shorter walk times to a destination in the on-street surveys, compared to those who were not aware.
- The attitudes of pedestrians supports the objective that the scheme encourages walking between areas. Those aware of Legible London are more likely than those not aware to say that the information in the pilot area is good for helping to find the shortest route.
- In addition, those aware are also more likely than those not, to agree that the signs and maps in the area give confidence to explore and to encourage walking to new places.

Local Context

7.6 The Clear Zone pilot area is illustrated in

7.7 Figure 7.1 below. It is centred on Bloomsbury and Covent Garden, an area served by many Tube stations and bus routes. There are a number of large campus-style destinations including University College London, the London School of Economics and Great Ormond Street Hospital, in addition to other educational establishments and the Inns of Court. There are also large areas where the street pattern is confusing: streets are narrow and short and have few landmarks.

FIGURE 7.1 CLEAR ZONE PILOT AREA



7.8 The area is very congested with pedestrians, in particular around Covent Garden, with Covent Garden Underground station often closed at peak times. It is home to the British Museum, which is hidden from the main walking routes and relatively difficult to find from Covent Garden station.

7.9 The area will be subject to major changes in the coming years with the opening of the new Crossrail station at Tottenham Court Road, with work already started in this area.

7.10 Key themes for the Clear Zone pilot area include:

- improving perception of distance amongst people walking in the area;
- encouraging 'transfer' of short trips presently being made by Underground (e.g. between Holborn, Covent Garden and Leicester Square or Leicester Square and Tottenham Court Road Stations). There is a high volume of these, despite the distances between them being very short, and it is presumed that many of these trips are made by visitors unfamiliar with the area and therefore unaware of this; and
- encouraging walking to the British Museum by visitors, who may be deterred by the relative difficulty of locating it from major thoroughfares.

7.11 The Baseline evaluation report included profiling information on each pilot area. The key headlines from this for the Clear Zone were:

- The majority of the day time population are non-residents;
- Amongst residents, car ownership is low, while public transport accessibility is high;
- The population is likely to have a higher than average propensity to walk.

7.12 Street clutter in the form of other pedestrian signage has been removed from 16 locations in the Clear Zone within Camden's boundary[16].

Detailed Survey Programme

On-street user interviews

The following table shows the volumes of interviews completed at the Clear Zone pilot locations in the pre- and post-stages.

TABLE 7.2 ACHIEVED INTERVIEWS ON-STREET – CLEAR ZONE

	Pre-stage 26th June - 17th July 2009	Post-stage 28th June – 20th July 2010
Covent Garden	276	-
British Museum	273	115
St Giles	256	103
TOTAL	805	218

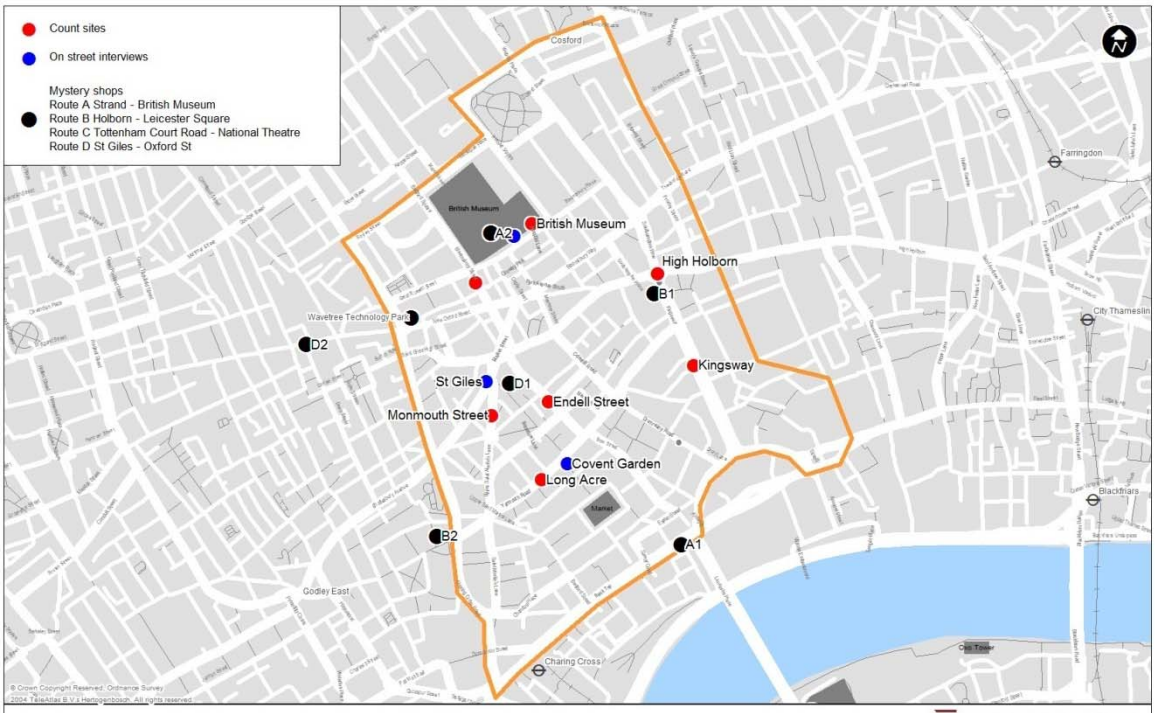
7.13 The interviews were conducted between 7am and 7pm at:

- The British Museum, a key attraction and a target destination for the Legible London programme;
- St Giles (north end of Neal Street), a confusing area with poor perception of proximity to key areas close by; and
- Covent Garden – although this was only included in the pre-stage due to Legible London not being installed at this location at the time of the post-surveys.

7.14 The survey locations are shown in the map below.

16 TfL, Clear Zone street clutter removal phase 1, November 2009

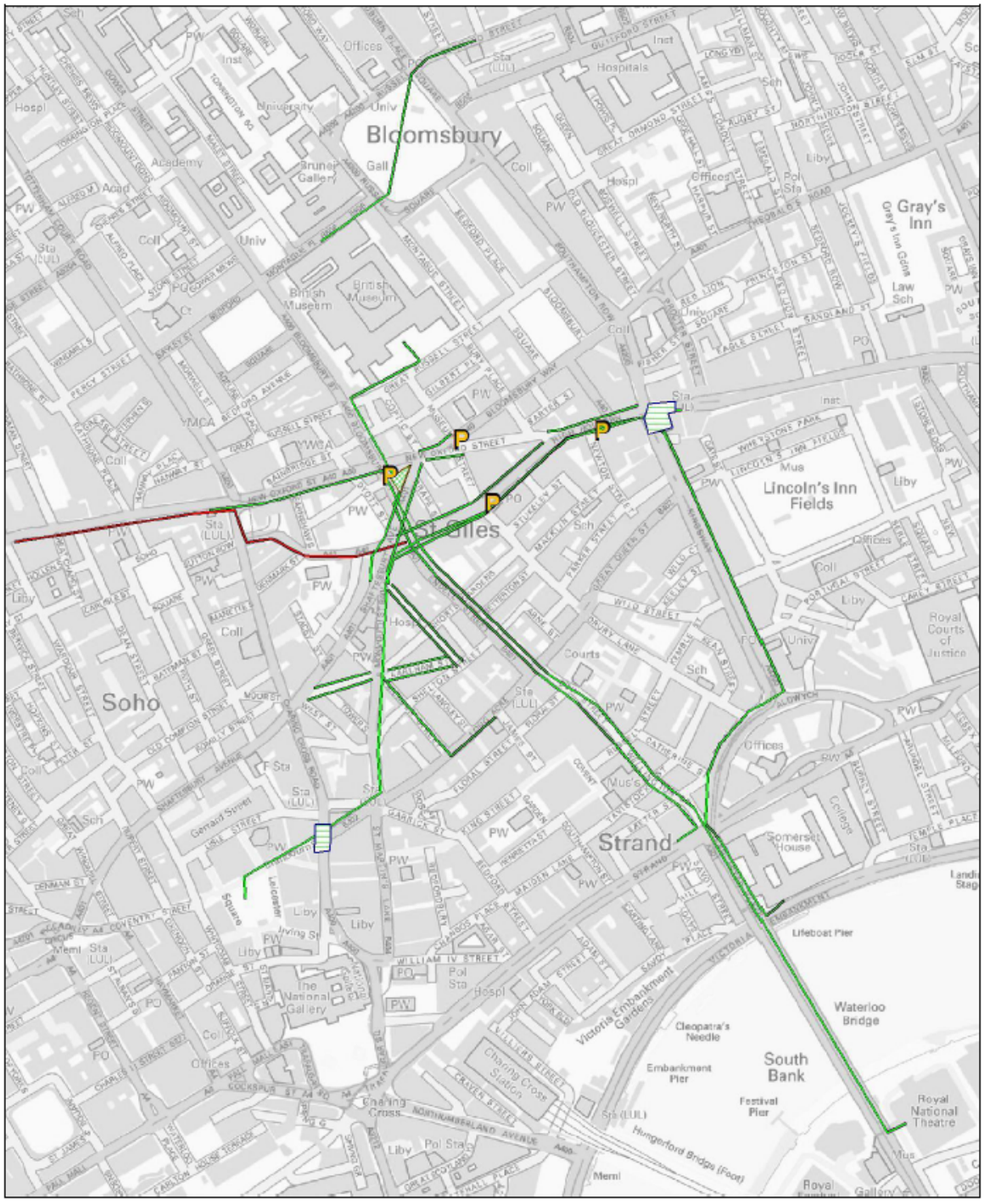
FIGURE 7.2 CLEAR ZONE SURVEY LOCATIONS



PERS audits

7.15 The PERS legibility audit was undertaken on 23rd June 2009 for the pre-stage and 22nd June 2010 for the post-stage between 9am and 5pm on each occasion. The streets and other spaces surveyed are indicated in Figure 7.3 below:

FIGURE 7.3 PERS AUDIT – AREAS SURVEYED IN CLEAR ZONE PILOT AREA



Source: TRL

Pedestrian counts

7.16 Pedestrian counts were undertaken between 2nd and 4th July 2009 in the pre-stage and 1st-4th July 2010 for the post-stage. The counts were conducted between 7am and 7pm. People walking in both directions were counted specifically at:

- Outside the British Museum;

- High Holborn;
- Long Acre (both sides);
- Monmouth Street (both sides);
- Kingsway;
- Bloomsbury Street (both sides); and
- Endell Street (both sides)

7.17 In addition, in the post-stage, observation counts were conducted at two locations, each with 2 Legible London signs. The length of time people stopped for was recorded.

7.18 The locations for these were Russell Square, and Holborn Station.

Mystery Shopping

7.19 The mystery shops undertaken were as in the following table:

TABLE 7.3 MYSTERY SHOPPING SCHEDULE – CLEAR ZONE

Number of walks		Pre-stage 9th – 12th July 2009		Post-stage 24th June – 4th July 2010	
		weekday	**weekend**	**weekday**	**weekend**
A	Strand – British Museum	3	2	3	2
B	Holborn – Leicester Square	3	2	3	2
C	Tottenham Ct Rd – National	3	2	3	2
D1	Oxford Street – St Giles	3	2	3	2
D2	St Giles – Oxford Street	3	2	3	2
	TOTAL	15	10	15	10

7.20 These routes are illustrated in Figure 7.2. Mystery shoppers were recruited so they were unfamiliar with the area.

7.21 The Appendices include additional information concerning the mystery shopping survey including:

- an example mystery shopping record form; and
- maps of the routes actually taken by the mystery shoppers.

Accompanied journeys

7.22 Eight accompanied journeys were carried out in the post-stage of the evaluation. These used the same origins and destinations as the mystery shops. Much like these they recorded the journey taken to get to the destination, and the information used to get there.

7.23 They also provide more qualitative information on the experience of walking in the pilot area.

7.24 The following table shows the routes taken.

TABLE 7.4 ACCOMPANIED JOURNEYS FIELDWORK SCHEDULE

		Post-stage 13th – 26th July
B	Holborn – Leicester Square	2
D	St Giles – Oxford Street	1
A	Strand – British Museum	1
C	Tottenham Court Road – National Theatre	1
	TOTAL	5

Survey Outcomes

Pedestrian counts

7.25 Overall, 128,000 people were counted across the seven count points on an average weekday. The weekend sees somewhat fewer people, with 72,000 in total counted.

7.26 The busiest count point on a weekday was Long Acre, which was counted to include people leaving/ arriving at Covent Garden station. A total of almost 38,000 people were seen at this location over 12 hours. This point was also the busiest at weekends, although with a slightly smaller volume of pedestrians (almost 23,000).

7.27 The quietest count location was Endell Street on both weekdays and weekends (7,900 and 4,600 people respectively).

7.28 The full count data can be found in the Appendix.

7.29 Comparing these counts to last year, in total, the volume of pedestrians counted has increased by 1% on both weekdays and weekend days.

7.30 However, there was some variation by individual location. For example, as seen in the following charts, the volumes counted at Long Acre and the Kingsway on weekdays has increased slightly compared to the pre-stage, while the High Holborn and Bloomsbury Street volumes have decreased by around 3-4,000 people each.

7.31 On weekend days, the volumes recorded are more similar to the pre-stage, with the largest change seen at Kingsway where the volume has increased by 1,200.

FIGURE 7.4 PEDESTRIAN COUNTS BY LOCATION - COMPARISON OF PRE- & POST-STAGES - WEEKDAY

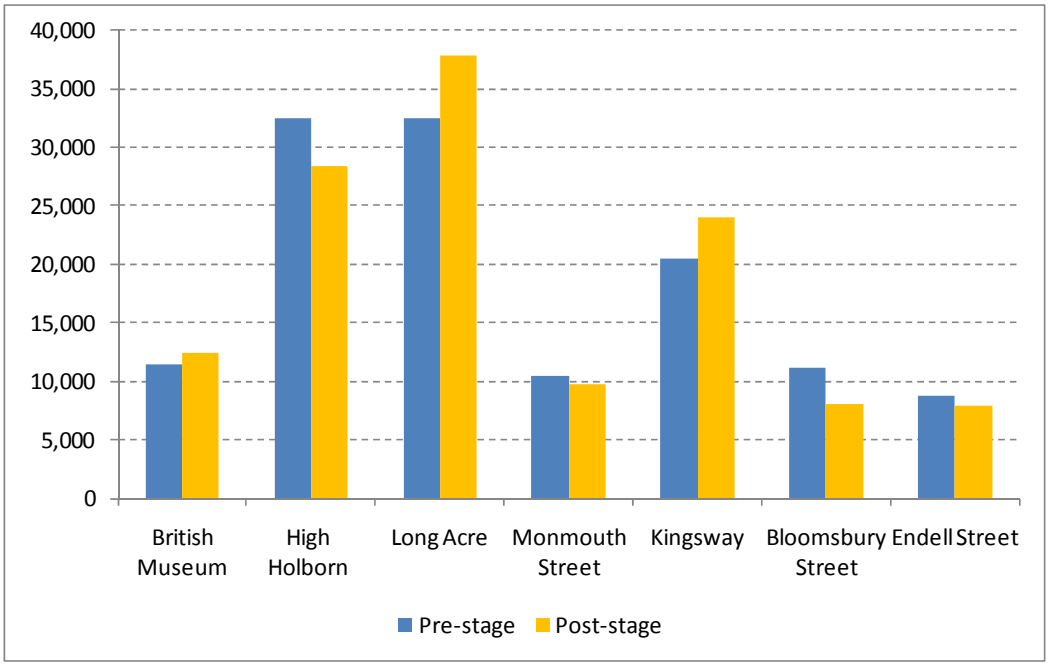
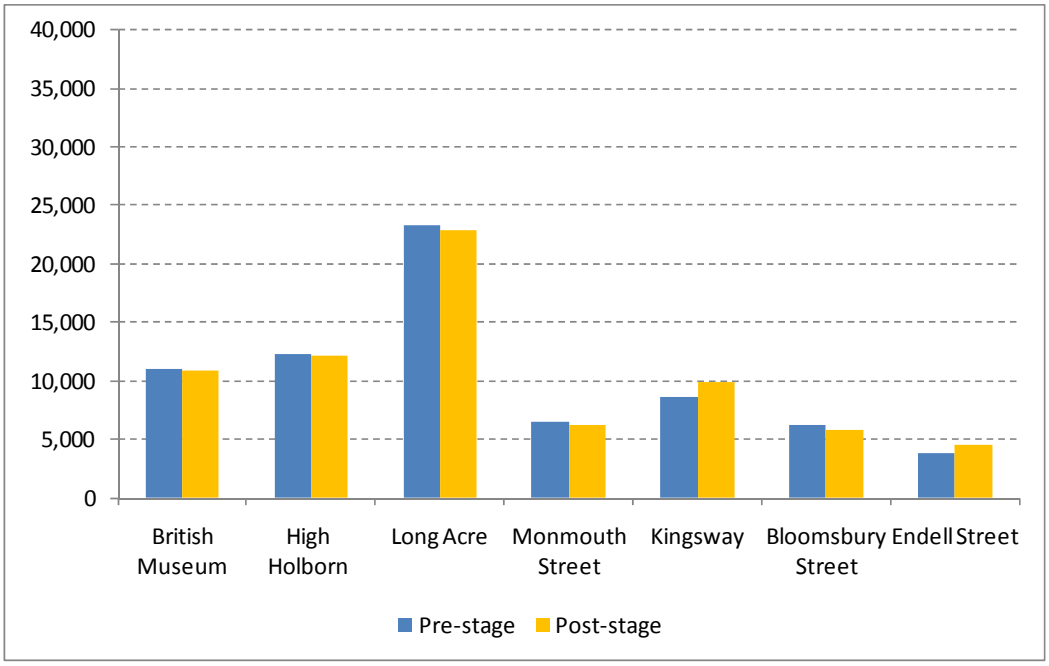


FIGURE 7.5 PEDESTRIAN COUNTS BY LOCATION - COMPARISON OF PRE- & POST-STAGES - WEEKEND



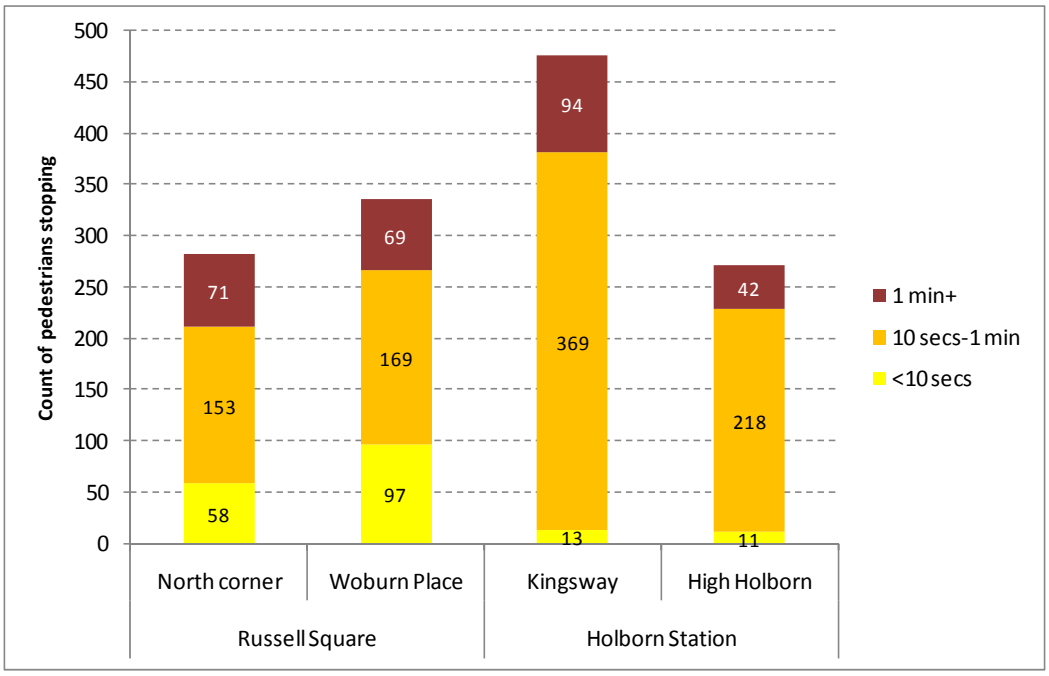
Observations

7.32 As well as counting pedestrians in the pilot area, two observational counts were conducted. These recorded people who stopped and looked at the Legible London monoliths in these locations.

7.33 The following chart (Figure 7.6) shows the volumes of people using the Legible London monoliths during the count day.

7.34 The busiest monolith is on the Kingsway (outside Holborn station) with over 450 users, but all those included in the survey were relatively well used.

FIGURE 7.6 OBSERVATION COUNTS BY LOCATION - WEEKDAY

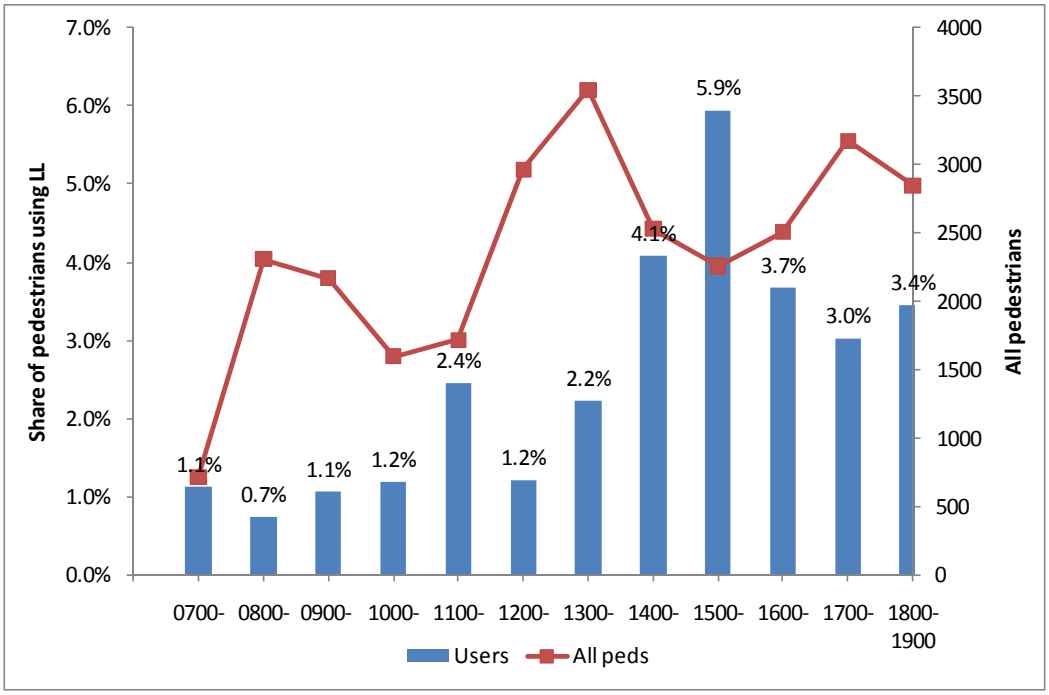


7.35 The Kingsway monolith had an average of almost 40 people per hour stopping to use the sign, with the majority of these stopping for between 10 seconds and 1 minute.

7.36 The busiest time of day for users at the Kingsway monolith was between 3 and 4pm.

7.37 At High Holborn both pedestrian and Legible London user counts were undertaken enabling an analysis of the proportion of pedestrians using the signs to be undertaken (Figure 7.7). This proportion ranges from around 1% in the morning peak to as much as 6% in mid afternoon, between the lunchtime and post-work peaks in pedestrian movements.

FIGURE 7.7 USERS AS A SHARE OF ALL PEDESTRIANS – HIGH HOLBORN - WEEKDAY



On-street user interviews

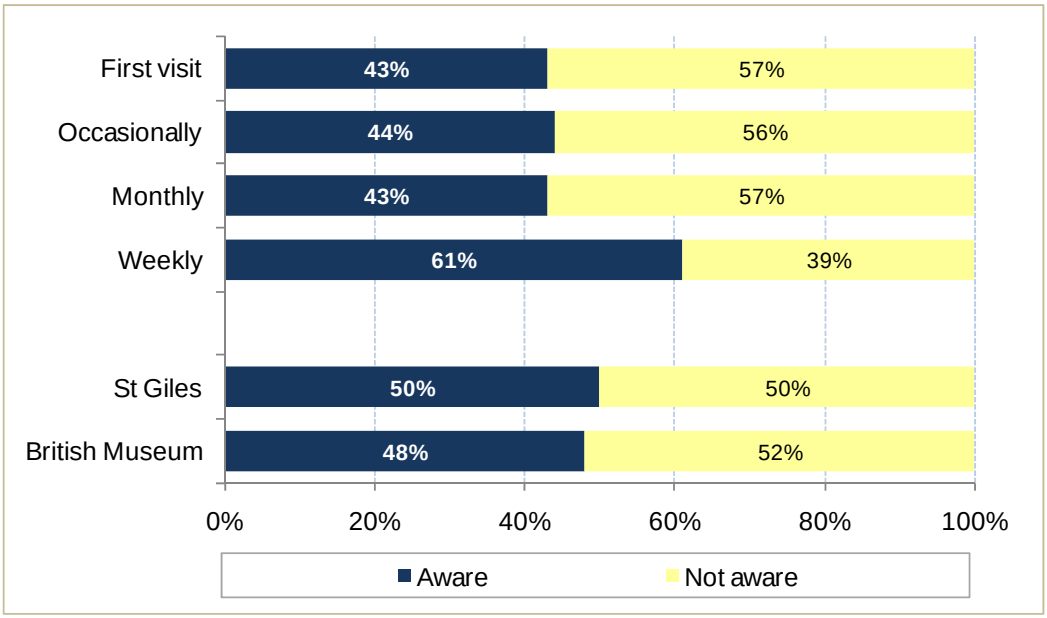
Due to surveys not being conducted at Covent Garden, the pre-stage figures have been updated to reflect the two survey points in both stages, therefore some numbers may have changed if comparing to the pre-stage report.

Awareness

7.38 Overall awareness of Legible London amongst pedestrians was 52% in the Clear Zone pilot area. This was somewhat higher amongst more frequent visitors, as shown in Figure 7.8.

7.39 The majority of visitors interviewed at the British Museum were from outside the UK, and in the area for leisure purposes. At St Giles, more than half of respondents were London residents. Although awareness does not vary particularly by location of residence, those who visit at least once a week appear slightly more likely to be aware of Legible London.

FIGURE 7.8 AWARENESS OF LEGIBLE LONDON

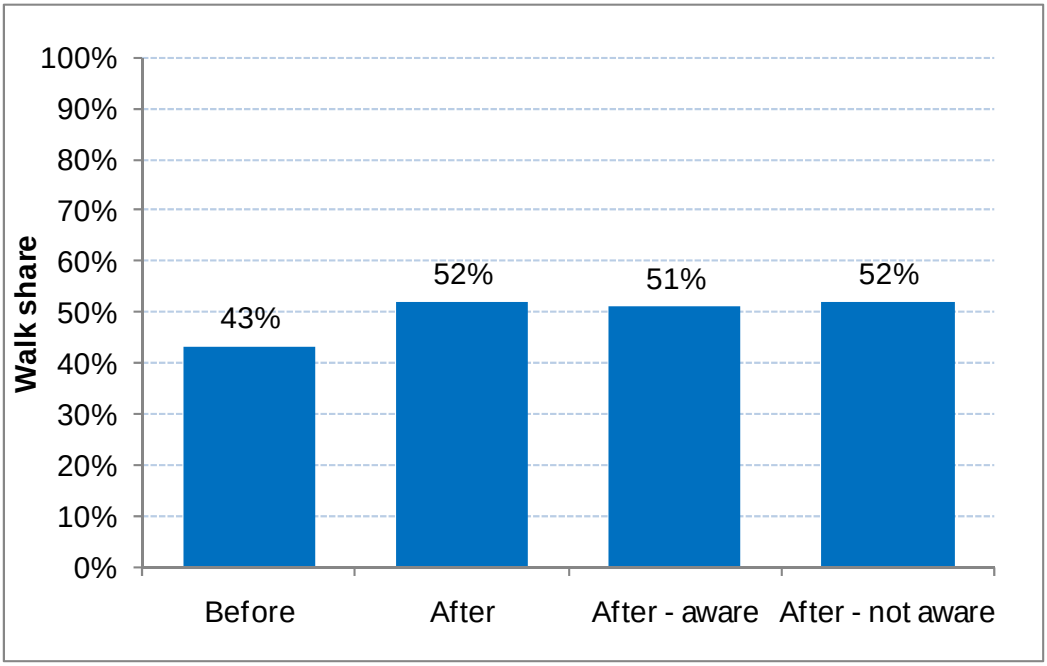


Base post-stage 218 (not aware includes 'don't know')

Behaviour change/ mode shift

7.40 Around half of pedestrians travelled to the area by foot, an increase compared to the before stage. This was the case both for those aware and unaware of Legible London (see Figure 7.9).

FIGURE 7.9 WALK SHARE FOR TRAVEL TO THE AREA

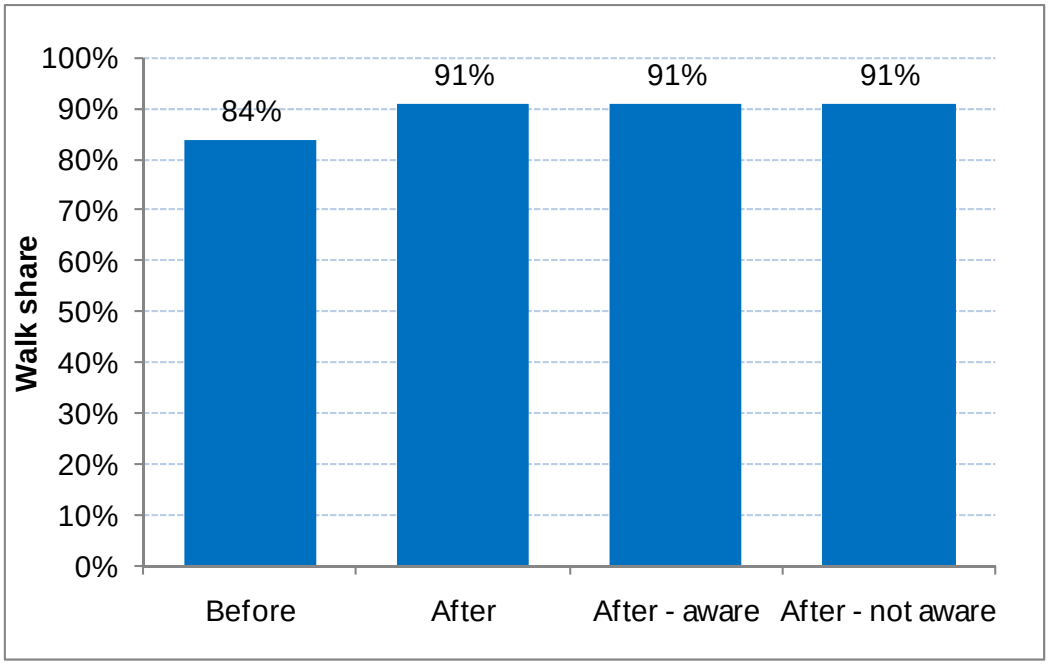


Base before 529, after aware 107, after not aware 109

Post-Stage Analysis

7.41 Within the area, walking was very much the dominant mode, with around nine in ten walking in the area (Figure 7.10). There was little difference when compared to 2009.

FIGURE 7.10 WALK SHARE FOR TRAVEL IN THE AREA



Base before 529, after aware 107, after not aware 109

7.42 One of the key objectives in the Clear Zone is for walking to replace use of other modes for travel within the area. In the post-stage surveys, the proportion of people who stated that they used the Underground to travel within the area had declined comparing stages (19% in pre-stage vs. 10% in the post-stage).

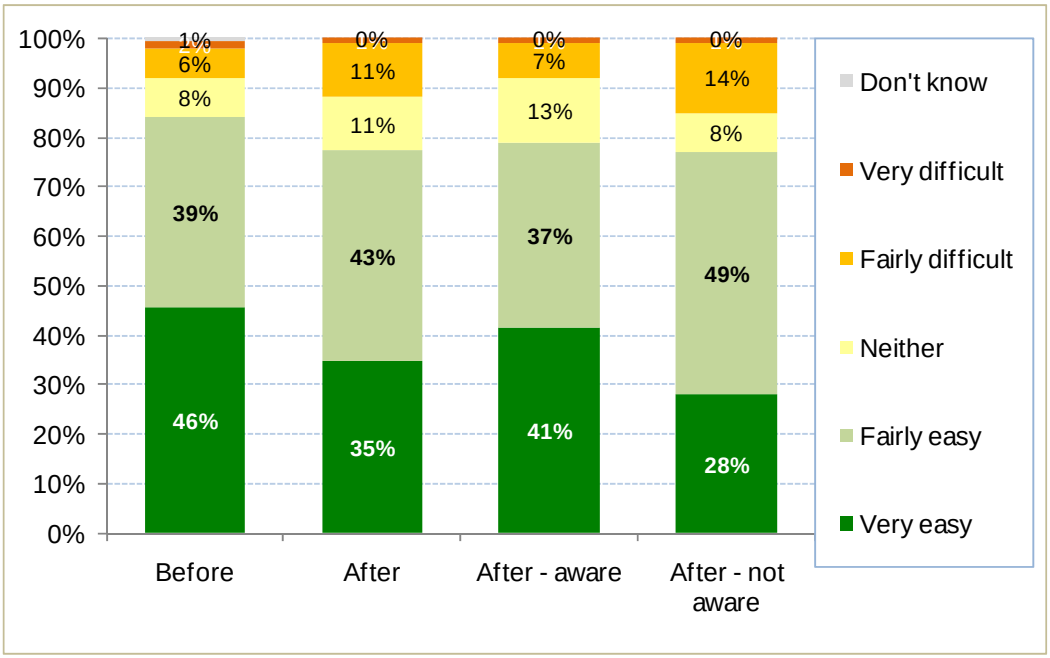
7.43 A similar decline was seen for bus use in the area, declining from 16% in the pre-stage to 11% of visitors in the post-stage.

Wayfinding

7.44 Overall, the measures for wayfinding have not shown an increase in the Clear Zone area. Compared to the pre-stage, a significant drop was seen in the proportion of people who said they found it very easy to find their way around the area on foot.

7.45 However, amongst those aware of Legible London, 78% said it was very or fairly easy to find their way around the area by foot and the share saying it was very easy was noticeably higher than for those unaware of Legible London (41% versus 28% - see Figure 7.11).

FIGURE 7.11 EASE OF FINDING WAY ROUND AREA BY FOOT

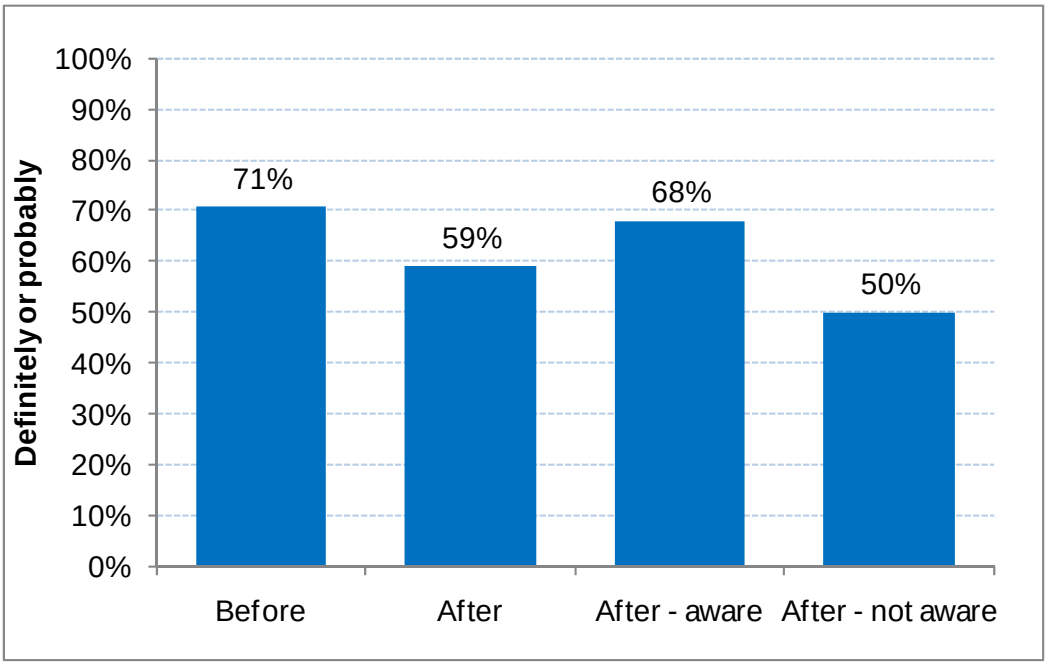


Base before 529, after aware 107, after not aware 109

7.46 Respondents' perceptions of their ability to find their way around the area also decreased compared to the pre-stage, by around 12%.

7.47 Again though, there was a significant difference between the aware and unaware groups in terms of knowing how to find the way to a particular destination: 68% of the aware group definitely or probably would know how to find the way, compared with 50% of the unaware group.

FIGURE 7.12 WOULD YOU KNOW HOW TO FIND YOUR WAY BY FOOT?



Base before 529, after aware 107, after not aware 109

Post-Stage Analysis

7.48 The average time estimated in the pre-stage was around 12 minutes, which increased to 12.7 in the post-stage.

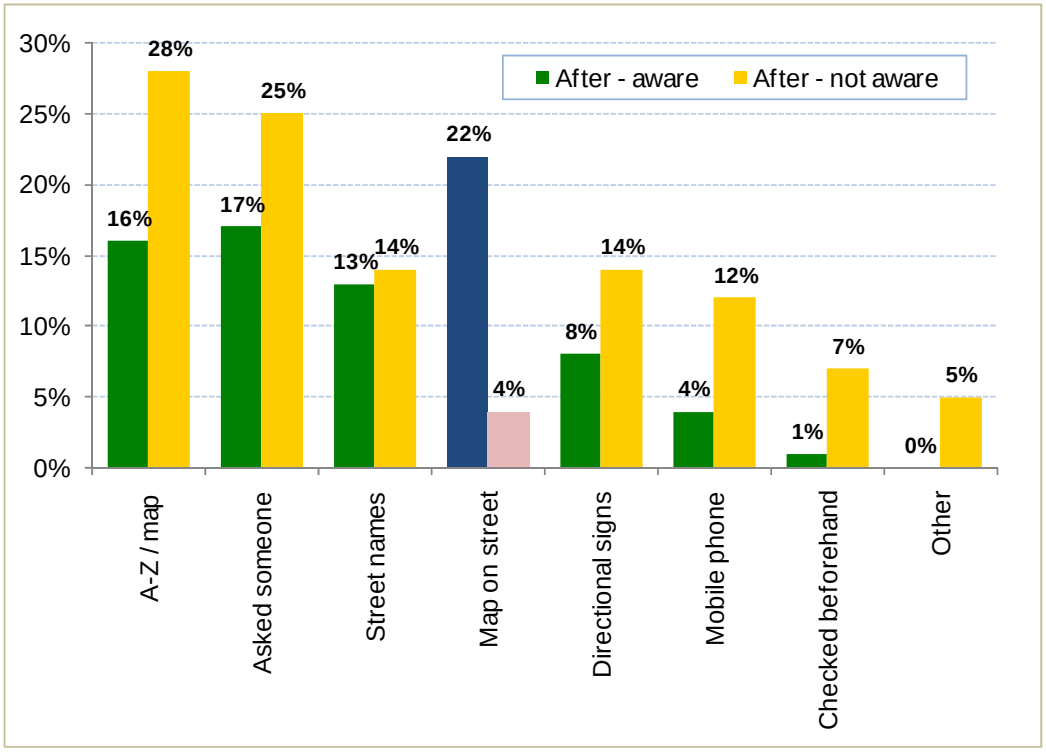
7.49 Those aware of Legible London estimated slightly shorter times to the destination than those not aware (12.2 versus 13.5 minutes; a 10% difference).

7.50 A third of people did not use any information to find their way around the area, with the majority of these saying they did not require any or they already knew the route.

7.51 The most used information sources overall are A-Z/ printed maps and maps on the street, although there are relatively large differences between those aware of Legible London or not, as shown in Figure 7.13.

7.52 22% of those aware of Legible London referred to a map on the street (compared with just 4% of those unaware of Legible London). Those that were aware were also less likely to use an A-Z, to ask someone, to use a directional sign, or mobile phone.

FIGURE 7.13 INFORMATION SOURCES USED



Base post-stage aware 107, not aware 109

7.53 The results were very similar when asking about information used to navigate from stations.

Attitudes towards Legible London

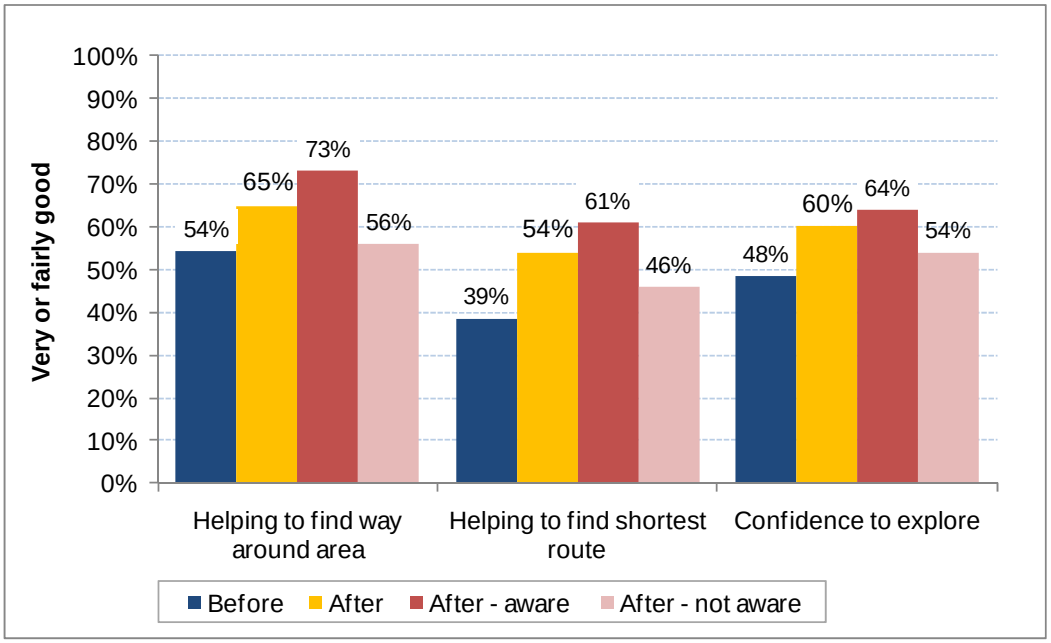
7.54 Overall, pedestrians aware of Legible London rate the signage more highly than those who are not aware (73% giving a rating of 'very/ fairly good' vs. 56%), and also higher amongst the aware group than in the pre-stage (54%).

7.55 The ratings of local signage in terms of: helping to find way round the area; helping to find the shortest route; and confidence to explore are shown in Figure 7.14. In all

cases, satisfaction (the share who said these were very or fairly good) increased when compared to the pre-stage.

7.56 It is the post-stage aware group though who gave the highest ratings, implying that Legible London may have contributed to the improvements in satisfaction.

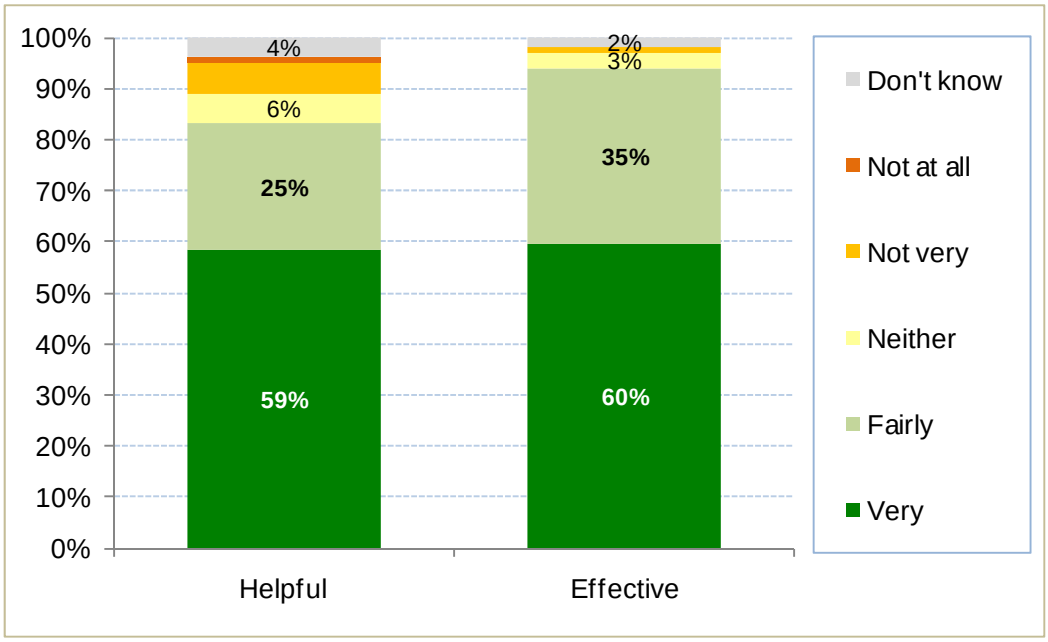
FIGURE 7.14 RATINGS OF LOCAL SIGNAGE



Base before 529, after aware 107, after not aware 109

7.57 Direct questions concerning the helpfulness and effectiveness of Legible London elicited a positive response: 95% very / fairly effective and 74% very / fairly helpful amongst those who had seen the signs (the full range of responses is shown in Figure 7.15).

FIGURE 7.15 HELPFULNESS AND EFFECTIVENESS OF LEGIBLE LONDON

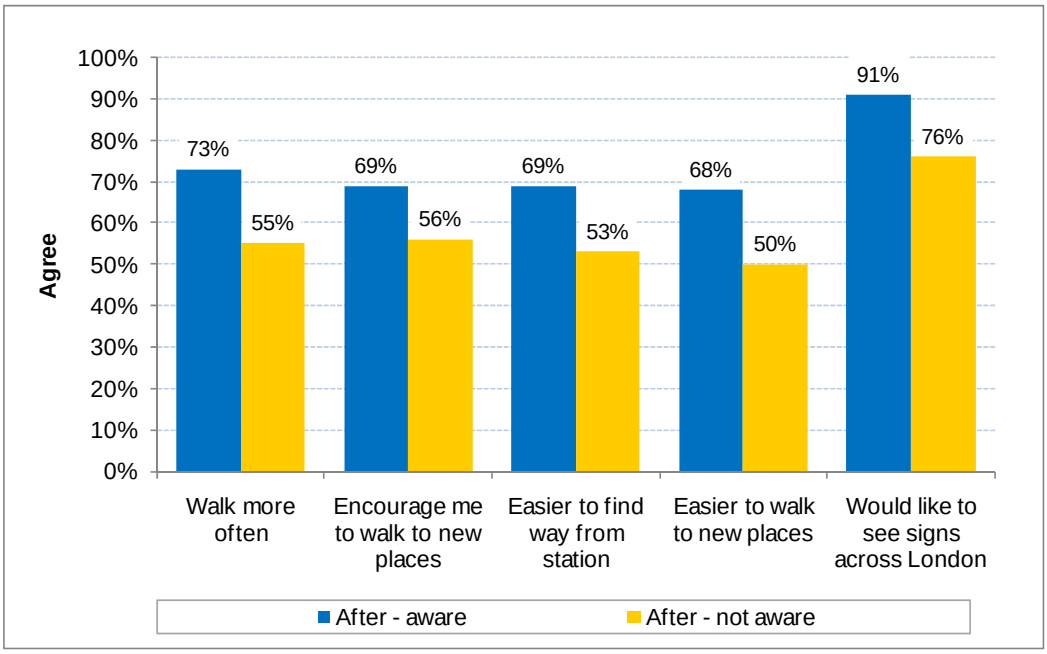


Base post-stage aware 107

7.58 A number of attitude statements were asked in the post-stage in relation to the 'signs and maps in the area'. The results are positive overall and particularly amongst those who were aware of Legible London.

7.59 The highest level of agreement was seen amongst those aware in relation to rolling out the scheme across other parts of London. Almost all respondents agreed with this.

FIGURE 7.16 ATTITUDE STATEMENTS



Base after aware 107, after not aware 109

Summary

TABLE 7.5 ON-STREET SURVEY KEY INDICATORS FOR CLEAR ZONE

	Pre (2009)	Post (2010)	Difference
Awareness	n/a	52%	n/a
	% very/quite good	*% very/quite good*	
Signage for finding way around area	57%	73%	+ 16
Signage for helping to find shortest route	42%	61%	+ 19
Signage for giving confidence to explore	52%	64%	+ 12
	% definitely/ possibly	*% definitely/ possibly*	
Would you know how to find your way	62%	68%	+ 6
Estimated length to destination	14.17	12.20	- 2.03
		% Agree	
I would like to see Legible London across London	n/a	91%	n/a
Legible London encourages me to walk to new places	n/a	69%	n/a
		% Fairly / very	
Effective	n/a	94%	n/a
Helpful	n/a	84%	n/a
	%	*%*	
Walked to area	45%	51%	+ 6
Walked within area	86%	91%	+ 5
Walk trip in area at least once a week	28%	35%	+ 7

Notes:

Ratings of signage based on five-point scale: very poor, fairly poor, neither good nor poor, fairly good, very good

"Would you know how to find your way" based on a four-point scale: definitely, probably, probably not, definitely not

Attitude statements on a five point scale: agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, disagree strongly

Effective / Helpful on a five point scale: very, fairly poor, neither, not very, not at all

Ratings for post-survey based on respondents aware of Legible London only

PERS Audits

7.60 The PERS legibility audit of the Clear Zone pilot area identified the following key findings:

General impressions

7.61 The Clear Zone audit area is mostly made up of lively, bustling streets, with high pedestrian flows. There are a number of trip attractions within the area itself, such as Covent Garden, The British Museum, and The Royal Opera House.

7.62 Although clearly used by local residents, pedestrians in the area appear to be primarily tourists and visitors to the various shops and attractions.

7.63 Overall the area is aesthetically pleasing, with good architecture and plenty of greenery. In addition, improvements have been made to a number of streets recently to make them more 'pedestrian friendly'.

7.64 The area audited is clean and well maintained, particularly when considering the very high numbers of pedestrians using the area.

PERS audit findings

7.65 In the 'before' audit, the majority of links and routes scored poorly in terms of legibility. Existing signage where it was found, in the form of finger posts, were inconsistent and in different styles.

7.66 Although the routes audited led to key destinations, pedestrian signage to assist wayfinding was often unavailable or only present for portions of the route.

7.67 The new Legible London signage has significantly improved wayfinding and legibility in the Clear Zone. Monoliths are installed along nearly all of the links assessed, usually at key decision points such as junctions or station exits. The provision of signage and the information provided on it both contributed to the increase seen in scores for links.

7.68 Holborn station was highlighted as being a particularly good location in terms of legibility, with three monoliths provided. Additionally, Seven Dials was also found to be much easier to navigate than previously through Legible London provision. The signage previously available, which shows detailed shop locations remain and compliment the monoliths.

7.69 Of the routes tested, the majority saw an increase in score. Those that did not were due to part of the route falling outside the area where signs had been installed, revealing the importance of consistency of the provision of this information.

7.70 The most positively rated route was between Russell Square station and the British Museum. The Legible London map inside the station was noted as being particularly useful. One negative on this route was the lack of a monolith at the back entrance to the British Museum.

7.71 Walking between St Giles and Oxford Street was less easy, with only one monolith available and the works around the Crossrail site reducing legibility.

7.72 The information provided at the audited bus stops was minimal in the pre-stage, usually consisting of timetables, route numbers and a small map showing the location of nearby bus stops. Many of the bus stops are now much easier to navigate to but all still require Legible London style maps to be installed on the stop posts or shelters.

7.73 The following table shows the average changes in legibility scores for this pilot area. It shows that scores have increased substantially for legibility of links and routes.

TABLE 7.6 AVERAGE CHANGES IN PERS LEGIBILITY SCORES – CLEAR ZONE

Parameters audited	Mean average 'before' score	Mean average 'after' score	Mean average change
Link: legibility	-1.3	+2.3	+3.6
Link: signage legibility for disabled people	-1.3	+2.5	+3.8
Link: pedestrian signage obstructions	+2.5	+2.5	0
PTWA: information to the waiting area	+1	+2	+1.0
PTWA: information at the waiting area	-1	-1	0
Route: legibility	-1.6	+1	+2.6

Scores from -3 to +3

Mystery Shopper Journeys

This section is based on a small number of surveys and results should be taken as illustrative.

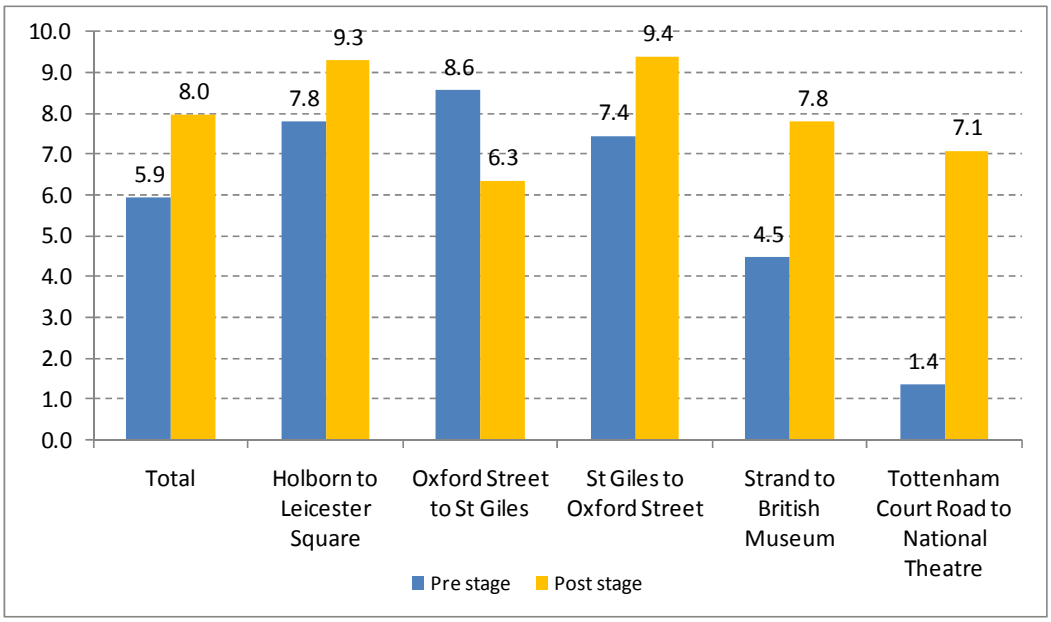
The mystery shopper journeys are designed to provide detailed feedback on the actual (rather than perceived) ease of wayfinding now compared with pre-implementation. While these surveys are not subject to the same type of random error/ variability inherent in customer surveys, the relatively small number of mystery shops should be taken into account and the results treated as indicative rather than definitive. The mystery shopper research is useful in providing a different perspective compared with the user surveys. For example, the on-street surveys are based on perceptions of how easy people think it is to navigate based on their experience, whereas the mystery shoppers are recording what actually happens.

7.74 The figures below indicates the outcomes of the mystery shopper evaluations for the sample journeys undertaken, comparing the results with those from the pre-stage.

7.75 The first chart (Figure 7.17) shows the overall mean satisfaction score for each of the five routes. Note that this is based on the average of the scores awarded at each point during the walk where there was a wayfinding activity undertaken. Overall, satisfaction has increased compared to the pre-stage, from a satisfied 6 out of 10, to a very satisfied 8.

7.76 For four out of the five routes the satisfaction ratings were noticeably higher in the after survey, the exception being Oxford Street to St Giles. This route received just 6.3 (out of 10) in the after survey (all the other routes score at least 7, and two scored over 9). This finding is likely to be explained by the locations of available Legible London signage, which is discussed later in this section.

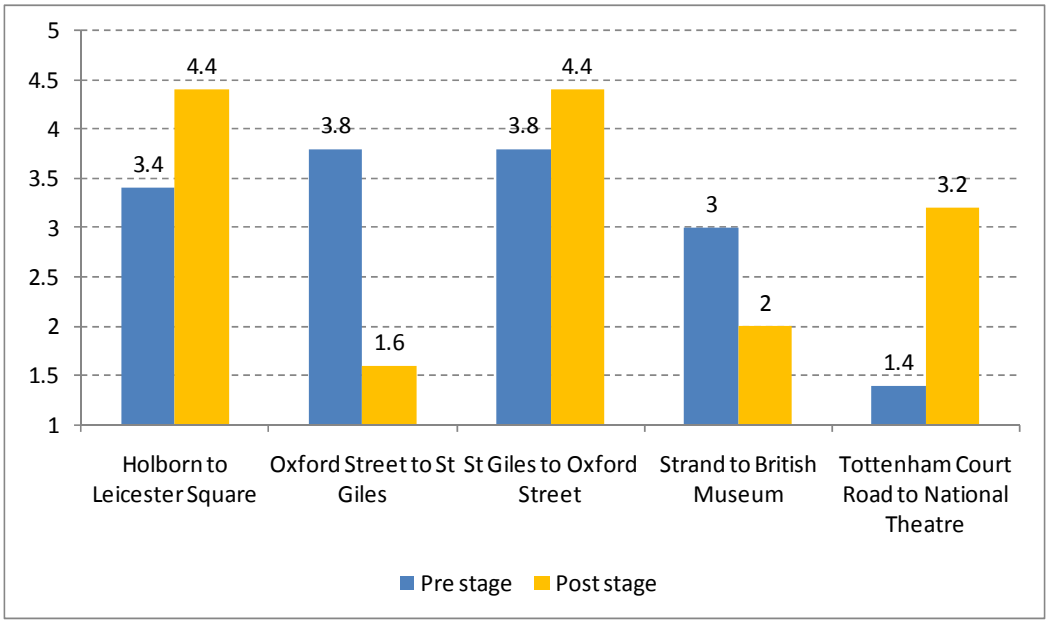
FIGURE 7.17 MEAN SATISFACTION SCORES – BY ROUTE – COMPARISON OF PRE- & POST-STAGES



Base pre-stage 25, post-stage 25. Where 0 = dissatisfied, and 10 = satisfied

7.77 The following chart (Figure 7.18) shows the scores for the ease of the wayfinding, before and after implementation. For three of the routes the scores were higher in the post-stage, but for the Oxford Street to St Giles and Strand to British Museum routes they were lower.

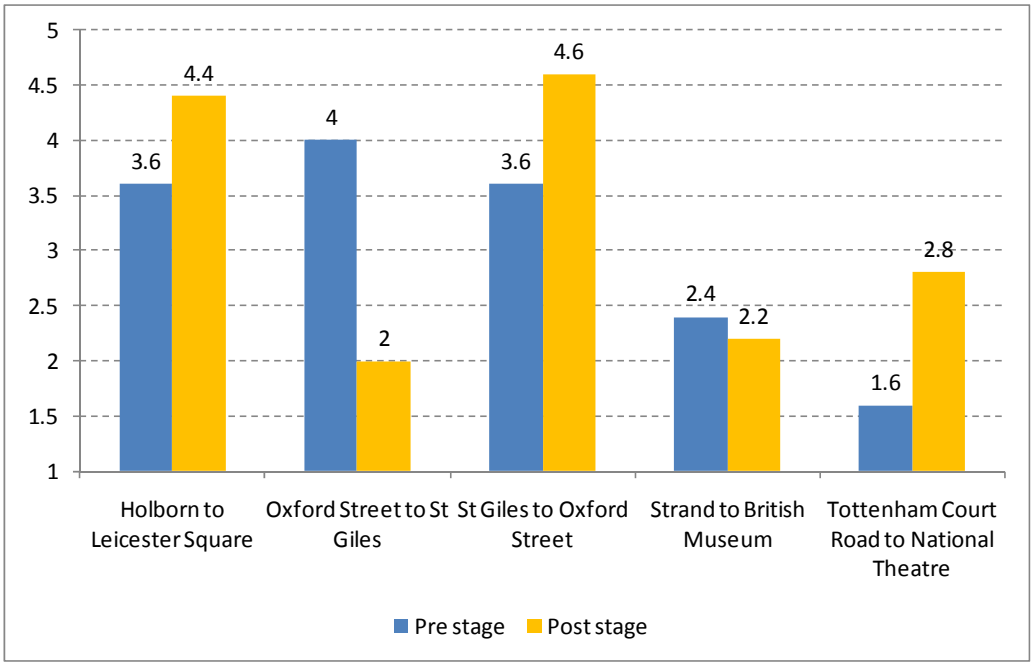
FIGURE 7.18 MEAN SCORE "OVERALL, HOW EASY DID YOU FIND IT TO FIND YOUR WAY?" - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



Base pre-stage 25, post-stage 25. Mean scores where 1 = very hard, to 5 = very easy

7.78 The ratings for the quality of signs for pedestrians are shown in Figure 7.19. These varies substantially by route and were particularly low (in the after stage) for Oxford Street to St Giles and Strand to British Museum. On the other hand, good ratings (and higher than in the pre-stage) were achieved for Holborn to Leicester Square and St Giles to Oxford St.

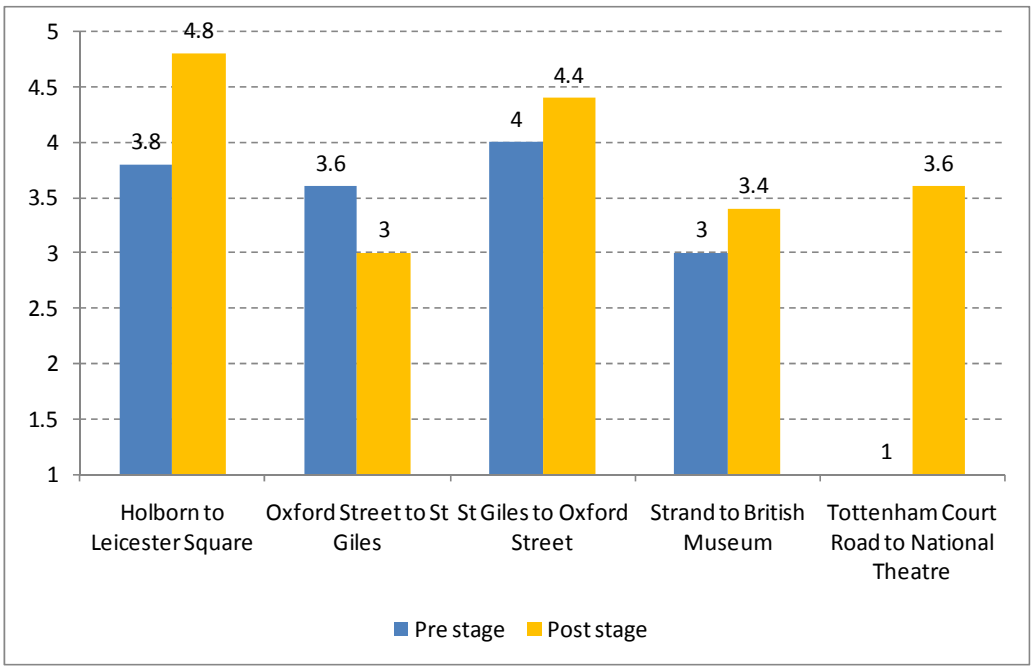
FIGURE 7.19 MEAN RATINGS OF THE QUALITY OF THE SIGNS FOR PEDESTRIANS - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



Base pre-stage 25, post-stage 25. Mean scores where 1 = very poor, to 5 = very good

7.79 The ratings for the quality of any maps used are shown in Figure 7.20. These ratings are somewhat less variable than for signs and for four out of the five routes they were better in the post-stage (the exception, once again, was Oxford Street to St Giles).

FIGURE 7.20 MEAN RATINGS OF THE QUALITY OF ANY MAPS USED - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



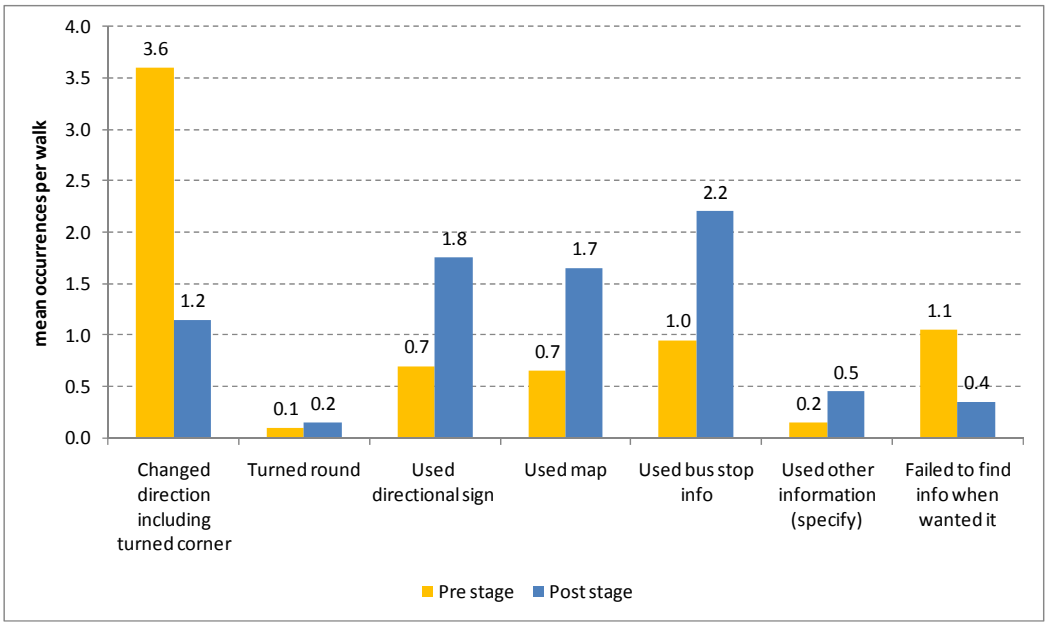
Base pre-stage 25, post-stage 25 Mean scores where 1 = very poor, to 5 = very good

7.80 Figure 7.21 following indicates some of the key wayfinding behavioural actions recorded during the course of the mystery shopper journeys, and compares the pre- and post-stage findings.

7.81 In the pre-stage, the most frequently mentioned action was changing direction, while in the post-stage using a map was more frequently mentioned.

7.82 A substantial decrease was seen in changing direction (down by 2.3 occurrences a walk), and also failing to find information (down by 0.7 occurrences per walk).

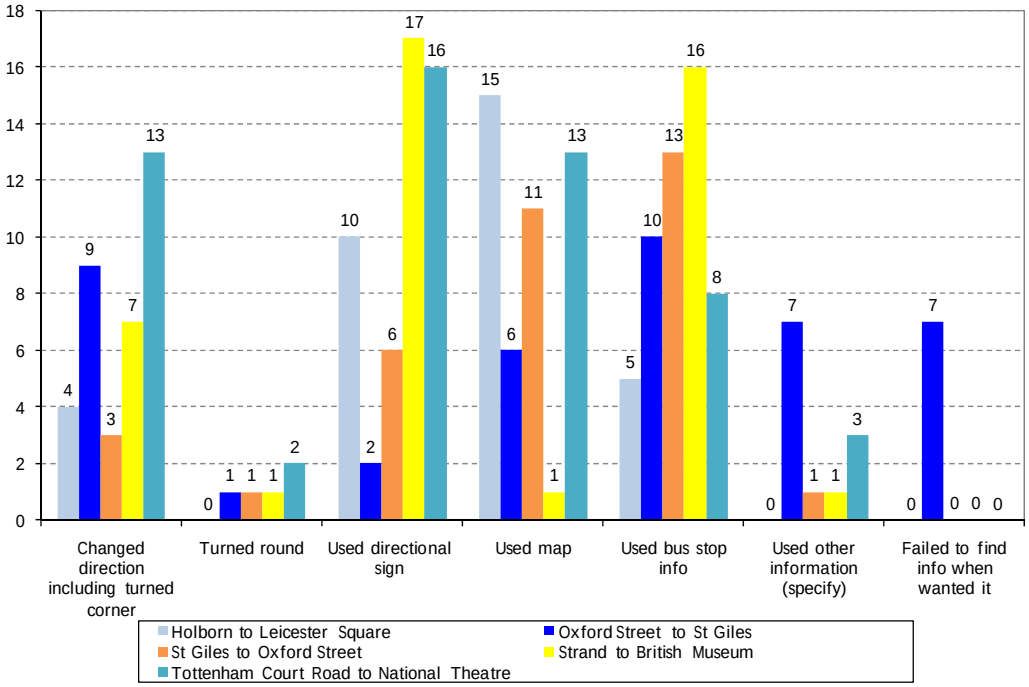
FIGURE 7.21 MEAN COUNT OF WAYFINDING BEHAVIOURS RECORDED BY WALK, PRE- & POST-STAGES



Base pre-stage 25, post-stage 25

7.83 The actions recorded for individual routes in the post-stage are shown in Figure 7.22. This shows substantial differences between routes with, for example, bus stop information and directional signs being particularly important on the Strand to British Museum route, but maps being more frequently used on most of the other routes. One of the key points to note is the number of occasions on which there was a failure to find information on the Oxford Street to St Giles route already referred to, which did not occur on other routes.

FIGURE 7.22 WAYFINDING BEHAVIOURS RECORDED - BY ROUTE - POST-STAGE



Base post-stage 25

7.84 The actual routes taken were recorded and are shown on maps in the appendix. Some differences seen between routes are highlighted below:

- Holborn to Leicester Square – this route had the most occurrences of using maps and in addition no-one turned round or failed to find information. This was despite the route leading out of the area where signs had been installed. Almost identical routes were taken by 4 of the 5 walkers.
- Oxford Street to St Giles – this route started in a location where no monoliths were available. Information at bus stops were generally used although walkers also asked other pedestrians when they got stuck (used other information). Apart from this a lack of information was generally felt.
- St Giles to Oxford Street – in the reverse direction of this journey, as already mentioned, satisfaction was higher. Maps were seen on all the walks close to the start and therefore satisfaction remained high. The one occurrence of having to turn round was at Cambridge Circus, and their direction was slightly changed when they saw information.
- Strand to British Museum – frequent use of direction signs and bus stop information were mentioned on this route. This was another route where monoliths were not available at the start of the route.
- Tottenham Court Road to National Theatre – direction signs and maps were used frequently on these walks. Although on a couple of walks, assistance was asked of other pedestrians. This walk also left the area where signs had been implemented.

7.85 Half of walkers said there was a point in their journey when they expected to see more information but did not.

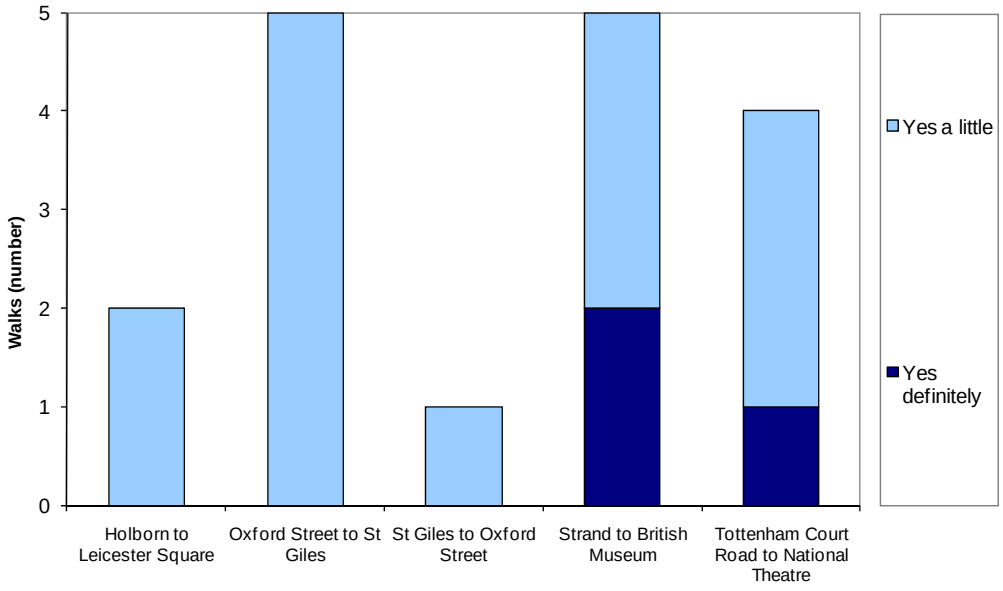
7.86 The Kingsway was mentioned in terms of a place where information was required but not found. Information is available on this road, the respondent did not specify where further information was required. In addition, St Giles was not felt to be highlighted well enough as a destination, particularly when further away from it.

7.87 Most locations mentioned were outside the area where signs had been implemented e.g. Covent Garden station, Cambridge Circus, Tottenham Court Road station, Strand. Expectations were further raised by experience in other locations on the route. The gap in signage between the Clear Zone and South Bank pilots was also noted on a walk to the National Theatre.

7.88 Feelings of being lost are shown in Figure 6.24 (post-survey) and

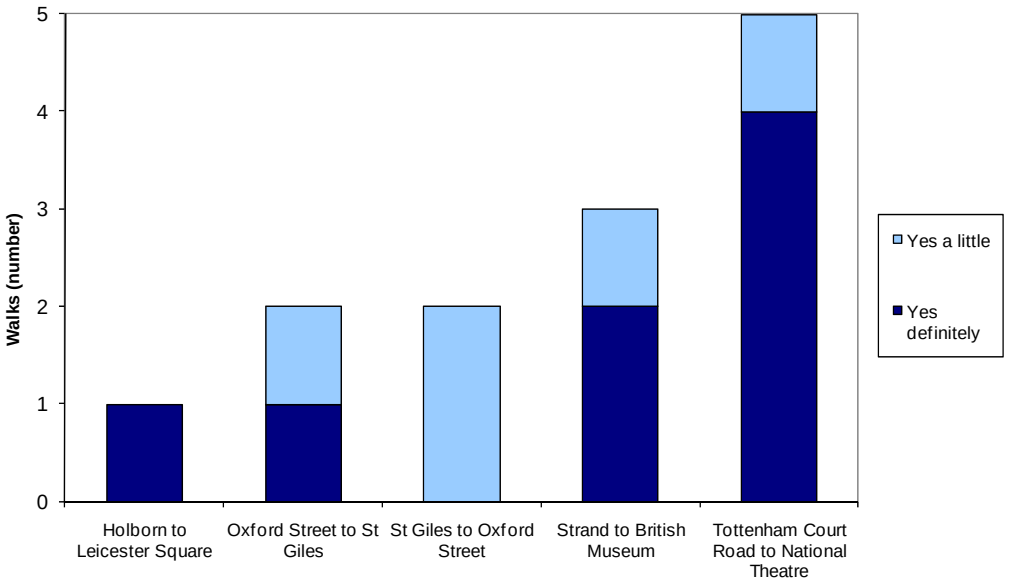
7.89 Figure 6.25 (pre-survey). There is some improvement between pre- and post-surveys, with a reduction in occasions of definitely feeling lost on three of the routes. Nevertheless, on the Strand to British Museum and Tottenham Court Road to National Theatre routes there were still a number of occasions where the mystery shopper definitely felt lost. This helps to explain some of the poor satisfaction ratings for these routes (see Figure 7.18).

FIGURE 7.23 WHETHER FELT LOST AT ANY POINT IN WALK - POST-STAGE



Base pre-stage 25, post-stage 25

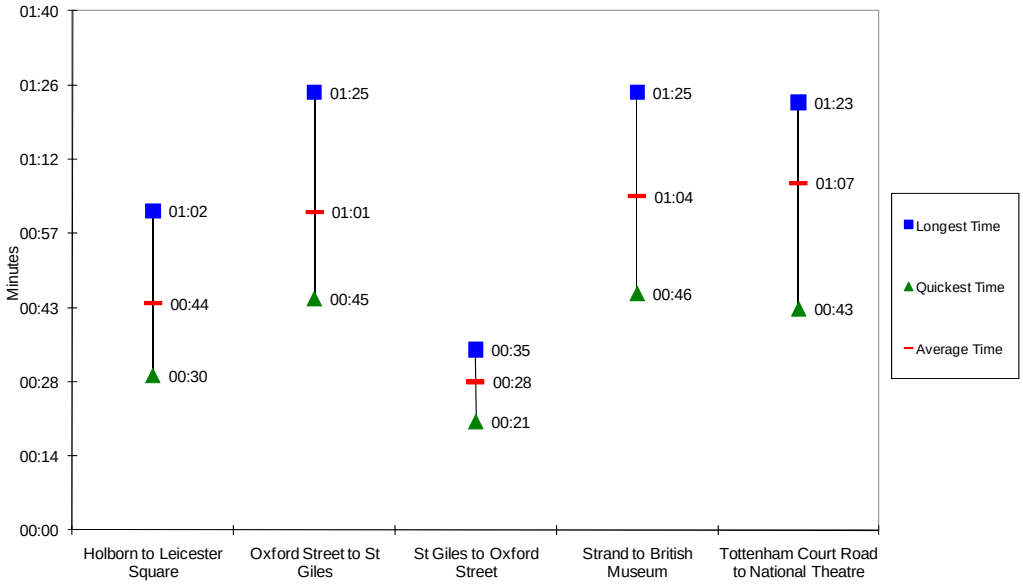
FIGURE 7.24 WHETHER FELT LOST AT ANY POINT IN WALK - PRE-STAGE



Base pre-stage 25, post-stage 25

7.90 The range of times taken to walk the five routes in the post-stage is shown below. The ranges were quite wide (30 minutes or more difference between the shortest and longest walk) for all the routes except St Giles to Oxford Street. The same walk in the other direction took twice as long on average, despite similar routes being taken by most.

FIGURE 7.25 TIME TAKEN FOR MYSTERY WALK - BY ROUTE - POST-STAGE



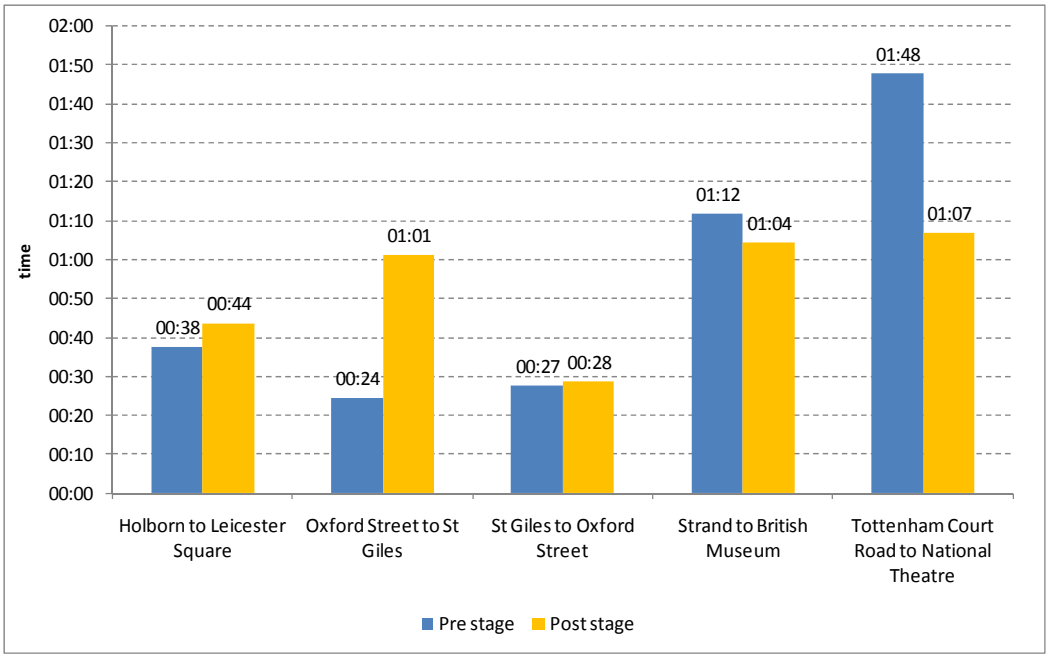
Base pre-stage 25, post-stage 25

7.91 On the Holborn to Leicester Square route, three of the walks took less than 30-40 minutes. These mystery shoppers all used more maps during their walks.

7.92 Comparing the mean times between the pre- and post-stages, shows that the average times were very similar for three routes, noticeably reduced for one (Tottenham Court Road to National Theatre) and increased for one (Oxford Street to St Giles). Looking at the ranges of times shows that these have narrowed substantially, excepting Oxford Street to St Giles. For example, looking at Holborn to Leicester Square, in the pre-stage the range was 22 minutes to 1 hour 27 minutes (a difference of over an hour) whereas in the after stage the range was 30 minutes to 1 hour 2 minutes, so the difference between the two is half.

7.93 The Oxford Street to St Giles walk may have been affected by works around the junction with Tottenham Court Road.

FIGURE 7.26 AVERAGE TIME TAKEN FOR MYSTERY WALK – BY ROUTE – COMPARISON OF PRE- & POST-STAGES



Base pre-stage 25, post-stage 25

7.94 Mystery shoppers were asked how these times compared with their expectations. The scores were very similar in both years, and less than 1 (where 1 is much longer than expected and 5 is much quicker than expected), meaning walks were felt to take longer than expected.

Legible London specific questions

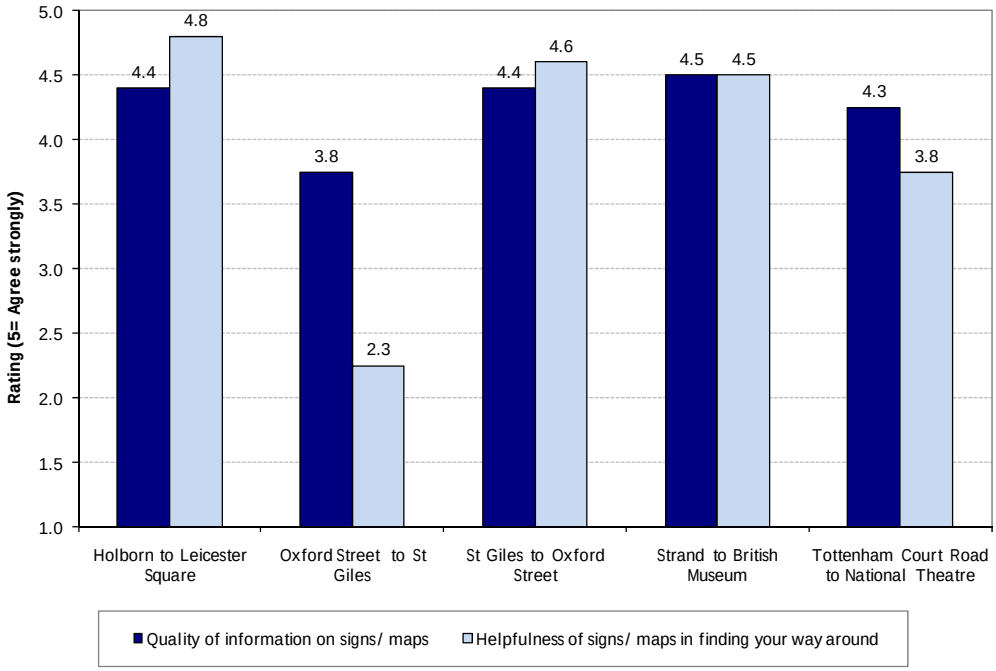
7.95 In the post-stage, respondents were also asked a series of questions about Legible London. They were not shown this before their walk, so they would not be prompted into noticing the scheme.

7.96 80% of mystery shoppers saw Legible London during their walk, and all but one of these used it. Three of those five who did not see it were walking from the Strand to the

British Museum. All but one walking this route went past locations where monoliths had been installed.

7.97 Looking at the quality and helpfulness of information (Figure 7.26), the ratings were good (over 3.5) with the exception of the helpfulness of signs on the Oxford Street to St Giles route.

FIGURE 7.27 MEAN SCORES FOR QUALITY & HELPFULNESS OF INFORMATION – BY ROUTE – POST-STAGE



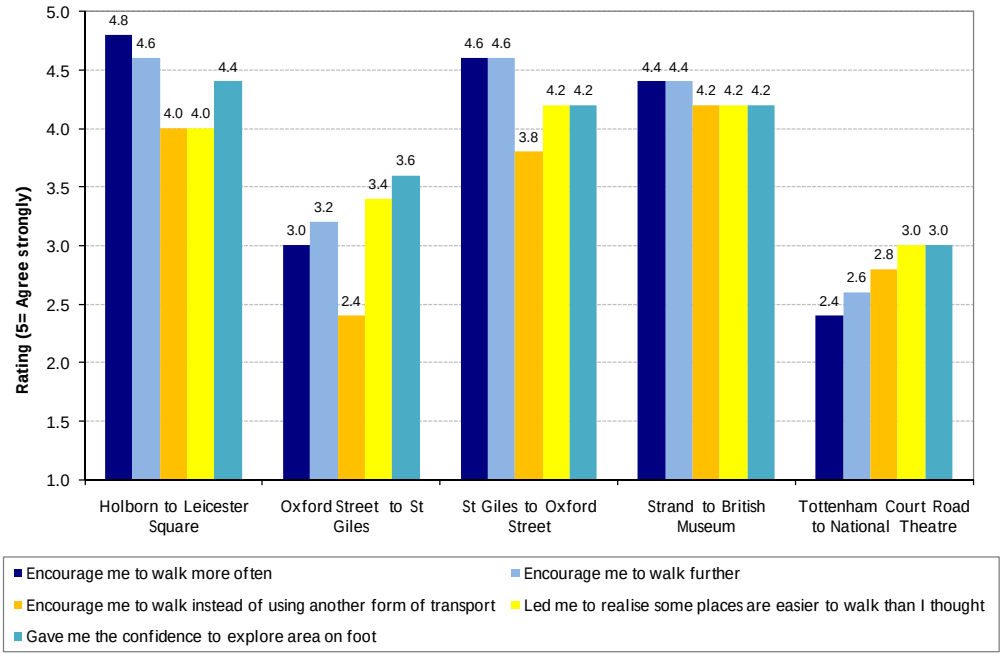
Base pre-stage 25, post-stage 25

7.98 Respondents were also asked to rate their level of agreement with a number of statements relating to the impacts of Legible London (Figure 7.28). The responses did vary noticeably between the routes and, for example, the mean level of agreement with the statement 'signs and maps in the area encourage me to walk more often' ranged from 2.4 out of 5 (Tottenham Court to National Theatre) to 4.8 (Holborn to Leicester Square).

7.99 Scores were lowest across all aspects for the Oxford Street to St Giles and Tottenham Court Road to National Theatre routes.

7.100 Ratings were higher on those routes where overall satisfaction was also higher. Generally for these routes 'encourage me to walk more often' was the highest rated along with 'encourage me to walk further'.

FIGURE 7.28 AGREEMENT WITH STATEMENTS ABOUT SIGNS AND MAPS IN THE AREA – MEAN SCORE BY ROUTE – POST-STAGE



Base pre-stage 25, post-stage 25

Summary of mystery shopping baseline results

7.101 Some of the key indicators from the mystery shopping survey are provided in the table below. This shows the change in the key measures between the pre- and post-stage. The table also shows some of the key measures from the post-stage and highlights the positive change since implementation.

FIGURE 7.29 MYSTERY SHOPPING KEY INDICATORS – COMPARISON OF PRE- & POST-STAGES

	Pre-stage	Post-stage	Difference
Overall satisfaction (out of 10)	5.9	8.0	+ 2.1
Quality of the signs (out of 5)	3.0	3.2	+ 0.2
Quality of any maps (out of 5)	3.1	3.8	+ 0.7
Definitely felt lost at some point (% of walks)	32%	12%	- 20%
Failed to find information when needed (occasions)	53	7	- 46
Had to turn around (occasions)	3	5	+ 2
Time taken	00:54	00:53	- 00:01

Accompanied journeys

7.102 The experiences during the accompanied journeys were mixed in terms of the information available and used. As with the mystery shops, the routes generally went out of the area where Legible London signage had been installed.

7.103 Generally, the respondents said that usually they would have pre planned a walk where they did not know where they were going, or would use a map or mobile for directions when on the street.

7.104 In this walk situation, all but one of the respondents needed to find information for at least one point in their journey, with those not knowing the area at all needing more information.

7.105 A range of situations were seen:

- Needing no information at all and finding their way straight to the destination;
- Knowing roughly where the destination was and looking for information only when get to point of not knowing where to go; and
- Requiring information at the very start of the journey, those who did not find this information had to ask for information in order to start walking.

7.106 Information was found for the most part while in the pilot area, and, in a number of cases, once leaving the area satisfaction fell. In cases where information was not found, the default reaction is to visit a station or to ask someone.

7.107 Finding information sources increased satisfaction although when the destination cannot be found the effect was less positive.

7.108 In one case, a monolith was seen and consulted despite already being confident of the route, in order to maintain confidence. At the following junction (High Holborn/ Bloomsbury Street), a monolith was not seen and confidence dropped. The following comment was made, and was reiterated by others:

"there should be clear signage at every major junction"

7.109 Other gaps in information were mentioned, although these were generally outside the pilot area. One specific example was information around Charing Cross to inform where to cross the river.

7.110 None of the respondents had seen Legible London before and reactions to it were positive, however more signs were required. This again was related to routes not having information for the duration.

7.111 The scheme was felt to be useful. One mentioned that it would be especially good in locations like the South Bank, where other mapping (e.g. on mobile) is vague, due to the area being more open and with fewer street names than other part of the capital.

7.112 It was generally felt that people would make use of Legible London now they knew it was there, although for some it might not change their behaviour as they pre-plan walk routes anyway. Comments included that it shows more places to walk to and how close places are, while another said:

"I will look for my way with these maps and walk instead of using public transport, which will help to save me money" (Holborn to Leicester Square)

7.113 One respondent mentioned that it did not show just tourist destinations on the map, for example it showed a post office, so would be useful for all types of users.

7.114 The question of whether the monoliths should be lit was raised by the interviewer, and in all cases this was seen to be a sensible suggestion, although was not mentioned spontaneously. One suggestion was to light them:

"possibly just at the bottom, or have a button to press to lit it when needed to save energy" (Holborn to Leicester Square)

7.115 The monoliths were not mentioned as getting in the way or being clutter in any way.

"They are visible, but don't get in the way" (Strand to British Museum)

8 Survey Detail Richmond & Twickenham

Key findings

8.1 Overall, pedestrians are positive towards the scheme and it is seen to be helpful in finding destinations in most cases.

8.2 Those aware of the scheme are significantly more likely to be more positive towards it when asked. This includes being significantly more likely to rate the walking experience, perceptions of wayfinding signage and confidence to explore the area on foot highly.

8.3 Ability to wayfind was considered by individuals to be good, but in terms of reductions in estimated or actual journey times the results were less definitive.

8.4 There was no hard evidence to support mode shift, though a significant number did state that Legible London encourages them to walk more.

Awareness

- Around half of pedestrians within the pilot areas are aware of Legible London. Those who visit more frequently are more likely to be aware.

Building confidence

- Attitudes are positive towards the scheme by all pedestrians, but particularly amongst those aware of the scheme. Those aware give very high ratings in terms of Legible London being helpful and effective.
- Three-quarters of those aware said that the information provided gives them more confidence to explore the area by foot.
- In the mystery shops, respondents were generally satisfied and more so when they used Legible London in their walk.
- The signs provide reassurance, even to those who know the route, as seen in the accompanied journeys.

Legibility and clutter

- The PERS audits did not show any change in terms of clutter, although this score was already high as few problems were identified in the pre-stage.
- There was no mention of clutter being a problem in the accompanied journeys either.
- The PERS audits did however show large increases in scores for legibility of routes and links, due to Legible London.

User perceptions

- Those aware of Legible London are more positive in terms of their ratings of the ease of finding their way around and whether they know how to find their way.
- Legible London was not found on one of the mystery walks (it started outside the area where signs had been implemented), and this lack of information was

reflected in all the scores given. When compared to those routes where the scheme was used, this shows the positive impact of the signs.

- There was a decline in the frequency of mystery shoppers feeling lost when compared to the pre-stage.
- The vast majority of on-street survey respondents said that they would like to see the scheme rolled out further; a very positive endorsement.

Reduced journey times

- Overall there does not appear to have been any change in wayfinding ability (in the on-street surveys), although those aware of Legible London are significantly more positive than those who are not.
- There was no real change in the ability to accurately estimate journey times.

Mode shift

- The proportions of people who walk to or within the areas appears to have dropped in the post-stage. There were no other findings supporting mode shift.
- Similar volumes of people were counted in both stages.
- Information at bus stops has been upgraded to Legible London maps in Richmond, which had a positive effect on the PERS scores for this aspect.

8.5 It should be noted that at the time of the surveys, the monoliths closest to Richmond and Twickenham stations had not been installed.

8.6 The following table shows the key indicators for the evaluation, and how they have changed since the pre-stage. In addition, post-stage only measures have been added.

TABLE 8.1 RESULTS OVERVIEW – RICHMOND & TWICKENHAM

All pilots	Source	Pre-stage	Post-stage	Change
Awareness of Legible London				
Awareness of Legible London (% aware)	A	-	48	-
Saw Legible London on walk (% of walks)	B	-	100	-
Information sources used (% of pedestrians using information)	A	-	13	-
User feedback	E	"Once I started to see those signs there was plenty of information and they're really good and clear"		
Change in attitude (confidence & user perception)				
Ease of finding way (% very/ fairly)	A	91	97	+6
Satisfaction: effective (% very/ fairly)	A	-	93	-
Satisfaction: helpful personally (% very/ fairly)	A	-	68	-
Satisfaction: finding way around area (% very/ quite good)	A	58	84	+26
Satisfaction: finding shortest route (% very/ quite good)	A	40	66	+26
Satisfaction: giving confidence to explore (% very/ quite good)	A	49	76	+27
Perception of journey time (average expected walk journey time, mins/ standard deviation)	A	12.48/7.73	12.73/7.0	+0.25 mins
Failing to find information (count of occasions)	B	41	23	-18
Definitely felt lost at some point (% of walks)	B	30	15	-15
Would like to see rolled out across London (% agree strongly/ agree)	A	-	93	-
User feedback	E	"If I knew it would only take 15 minutes to walk, I'd do that rather than take the bus or tube"		
Change in behaviour				
Encourages me to walk more often (% agree strongly/ agree)	A	-	52	-
Encourages me to walk to places I wouldn't have done before (% agree strongly/ agree)	A	-	59	-
Walked within area (%)	A	85	82	-3
Walked to area (%)	A	45	39	-6
Volume of pedestrians (total pedestrians weekday 7am-7pm, 7 sites surveyed)	C	49,646	56,993	7,347
Volume of use of signs (average users per sign weekday 7am-7pm, 2 monoliths surveyed)	C	-	55	-
User feedback	E	"It might encourage some people to walk further if they didn't realise what was there."		
Legibility and clutter				
Link legibility *(rated -3 to +3, average of Richmond & Twickenham)*	D	-2.1	+1.85	+3.95
Pedestrian signage obstructions *(rated -3 to +3, average of Richmond & Twickenham)*	D	+2.6	+2.6	0
Quality of signs (out of 5)	B	3.2	3.6	+0.4
User feedback	E	"could be missed if you were not looking for it."		

Table notes:

* Significantly different at 95% confidence level

Sources: A On-street surveys; B Mystery shopping surveys; C Pedestrian counts; D PERS audits; E Accompanied walks

Note: post-implementation results for on-street surveys are for those aware of Legible London

8.7 On top of the overall scheme objectives, the Richmond and Twickenham pilot aims to:

- Provide improved pedestrian information for visitors to Twickenham stadium - a useful test before the London 2012 Olympic Games and Paralympic Games
- Help visitors reach local attractions, including Richmond Park and Kew Gardens
- Improve the interchange between the bus and train networks at Richmond station

8.8 The findings from the study provide evidence for these objectives:

- A quote from the PERS Audit report provides evidence for the first and second objectives:

"Many new monoliths, miniliths and Legible London style finger posts were installed along all of the routes and therefore navigation to famous landmarks such as Twickenham Rugby Stadium, Richmond Green and The Thames River have been made easier for pedestrians travelling from either Twickenham Station or Richmond Station"

- Two of the mystery shopping routes had attractions as destinations, and for both of these, satisfaction was seen to be higher than it had been in the pre-stage.
- However, some respondents in these and the accompanied journeys felt that more information was required outside the town centres, closer to the destinations to increase confidence and provide indications of expected remaining walk time.
- The objective regarding interchanging at Richmond station cannot be fully tested at this stage as the monolith at this location had not been implemented. However, with the other available information pedestrians in the area felt that it was easier to find their way from the station (68% of those aware of Legible London agreed compared to 60% of those not aware).
- Additionally, bus stop information around Richmond had been upgraded to Legible London maps, and this positively impacted on the PERS scores for legibility.

Local Context

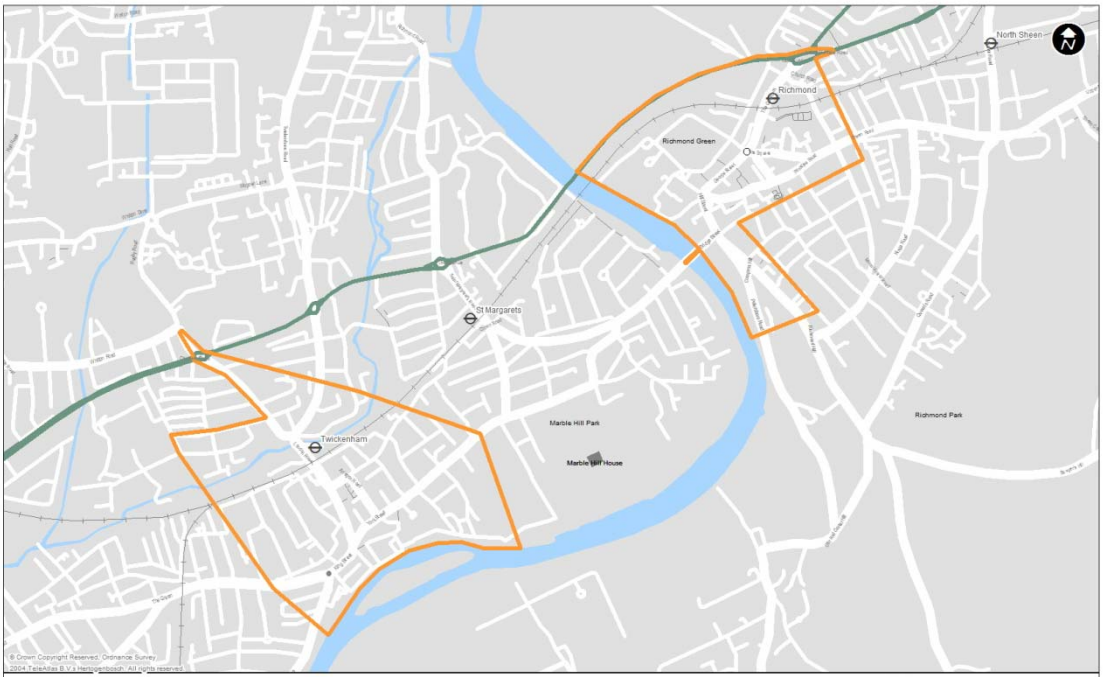
8.9 The Richmond & Twickenham pilot areas are illustrated in Figure 8.1. Richmond and Twickenham are both located in South-West London on the River Thames, and are affluent in nature.

8.10 Richmond is the larger of the two centres, and is more of a visitor destination in terms of its retail offer and attractive town centre including Richmond Green, the river and range of cultural activities including Richmond Theatre and two cinemas. It is also close to the nearby attractions of Richmond Park and Kew Gardens. Richmond is well connected, with the key gateway being Richmond Station which is served by both Rail and Tube. The

centre itself is comparatively small, with the station directly leading onto the High Street, where the retail core is centred, with most other attractions located directly off this. There is a small bus station located away from the High Street, though a number of services also serve the rail station.

8.11 Twickenham is a smaller centre and, with the exception of the Rugby Stadium, primarily serves as a location for office-based employment and as a local retail centre. The majority of day-to-day users would therefore be regular visitors. While the centre itself is not particularly remarkable, there are attractive locations close by including York Street, the river and, a little further afield, Marble Hill.

FIGURE 8.1 RICHMOND & TWICKENHAM PILOT AREA



8.12 Key themes driving the design and placing of the Legible London infrastructure communicated to the consultants by TfL and their Design Team for the Richmond & Twickenham pilot area included:

General

- that the two centres are, in terms of the design of Legible London, considered as discrete areas, i.e. the pilot scheme will not focus on improving connectivity between them.

Richmond

- The rail station is the key gateway into the town, and the High Street is a key pedestrian route.
- The Legible London scheme was being designed to focus on awareness / use of other central attractions by foot e.g. the green, the river, boutique shopping areas.
- Legible London also sought to provide information on public transport options for onward travel opportunities to nearby attractions e.g. Kew, Richmond Park.

- A potential likely benefit of Legible London could be attracting repeat visitors to use public transport rather than drive.
- That there is less scope for modal shift post-arrival i.e. walk is the natural choice having arrived by either public transport or car (the premise about 'car park hopping' seems speculative rather than evidence based).

Twickenham:

- There is an attractive, potentially under-explored, area away from the station / town centre area, especially towards the river.
- Legible London signage would help direct people to walkable (but potentially under-used) attractions e.g. Marble Hill, Twickenham Stadium (including the Rugby museum).

8.13 The Baseline evaluation report included profiling information on these pilot areas. Some headline findings from this include:

- The population is less dense in this area compared to the Central London areas, and the pilot includes some predominantly residential areas.
- The Smarter Travel Richmond scheme is also underway currently.
- The population profile is very different to the Central London pilot areas, with higher car ownership and more opportunity to encourage walking trips made by car.

8.14 In terms of pedestrian signage clutter removal[17], 31 sites were identified in Richmond town centre, and 22 in Twickenham town centre.

[17] London Borough of Richmond upon Thames, Legible London existing pedestrian signage Audit, November 2009

Detailed Survey Programme

On-street user interviews

8.15 The following table shows the volumes of interviews completed in the four locations within the Richmond & Twickenham pilot area in the pre- and post-stages.

TABLE 8.2 ACHIEVED INTERVIEWS ON-STREET – RICHMOND & TWICKENHAM

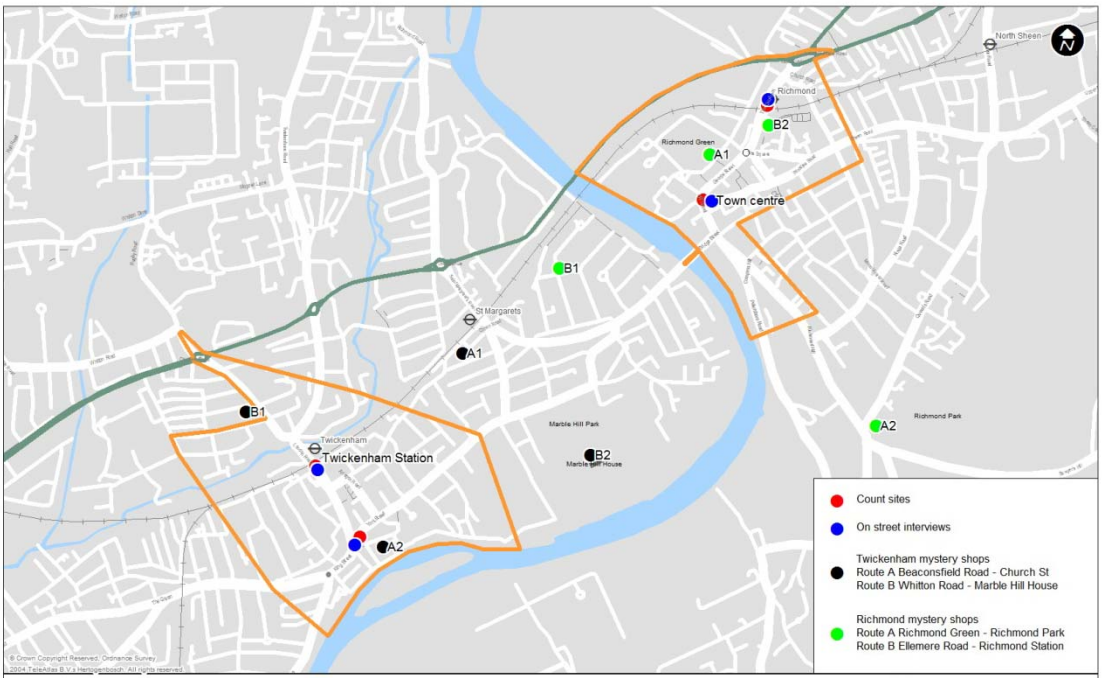
	Pre-stage 26th June - 17th July 2009	Post-stage 28th June – 20th July 2010
Richmond Station	210	126
Richmond town centre	206	127
Twickenham station	210	141
Twickenham town centre	207	106
TOTAL	833	500

8.16 The interviews were conducted between 7am and 7pm at:

- Richmond
  - Outside Richmond Station (key gateway)
  - Richmond town centre around the intersection of George Street (the High Street) & Hill Street (to capture those accessing the river and green, also some bus station users).
- Twickenham
  - Outside Twickenham Station (key gateway)
  - Twickenham town centre (King Street /York Street).

8.17 The locations for the surveys are shown in the following figure.

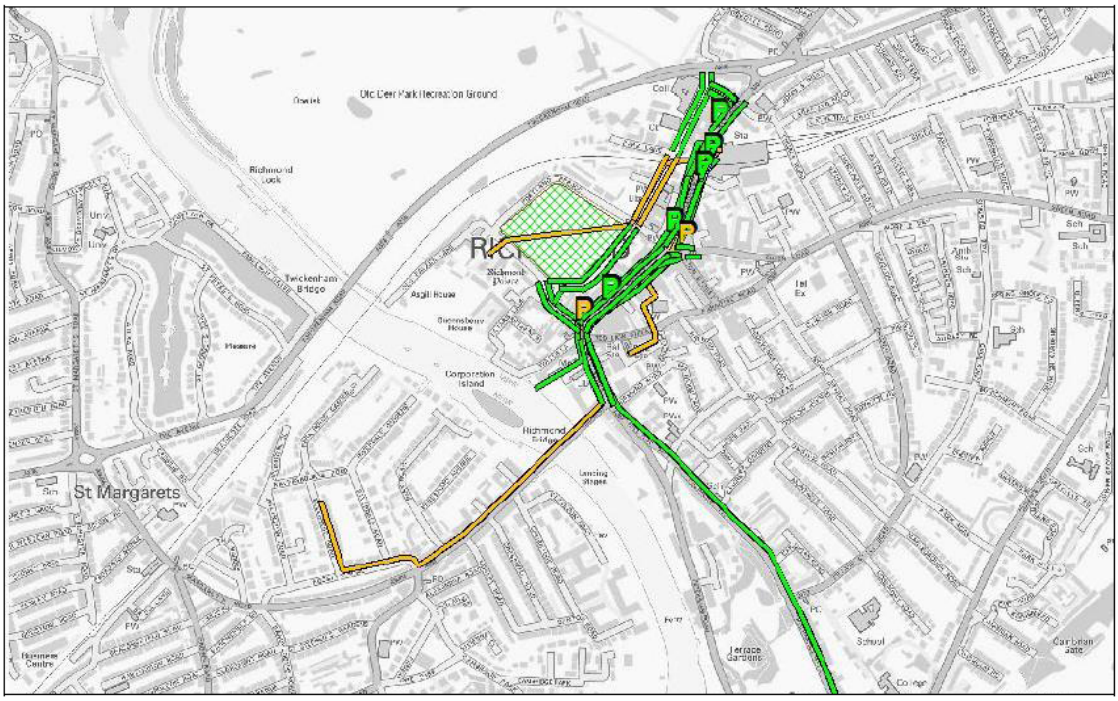
FIGURE 8.2 RICHMOND & TWICKENHAM SURVEY LOCATIONS



PERS audits

8.18 The PERS legibility audits were undertaken on 30th June 2009 for the pre-stage and 30th June 2010 for the post-stage between 9am and 5pm on each occasion. The streets and other spaces surveyed in the Richmond & Twickenham pilot area are indicated in Figure 8.3 and Figure 8.4 below:

FIGURE 8.3 PERS AUDIT – AREAS SURVEYED IN RICHMOND PILOT AREA



Source: TRL

FIGURE 8.4 PERS AUDIT – AREAS SURVEYED IN TWICKENHAM PILOT AREA

Source: TRL

8.19 The locations were:

- Richmond
  - Along George Street (the High St), and Hill Street
  - The Green and the lanes accessing the Green (2 main ones – incl. boutique shopping areas)
  - Route to river (road via Curzon Cinema).
- Twickenham
  - Central area - London Road / King Street / York Street
  - Church Street (boutique shopping).

Pedestrian counts

8.20 Pedestrian counts were undertaken between 3rd and 4th July 2009 in the pre-stage and 2nd and 3rd July 2010 for the post-stage. The counts were conducted between 7am and 7pm.

8.21 Pedestrians walking in both directions were counted at:

- Richmond station
- George street / Hill Street
- Twickenham station
- York Street.

8.22 In addition, in the post-stage, observation counts were conducted at two locations, one in each area. People who stopped were counted, with the length of time stopped for also recoded.

8.23 The locations for these were, in Twickenham, by Waitrose on London Road and on George Street for Richmond.

Mystery Shopping

8.24 The mystery shopping walks were undertaken as in the following table:

TABLE 8.3 MYSTERY SHOPPING SCHEDULE – RICHMOND & TWICKENHAM

Number of walks		Pre-stage 9th – 12th July 2009		Post-stage 24th June – 4th July 2010	
		weekday	**weekend**	**weekday**	**weekend**
B	Ellesmere Rd – Richmond	3	2	3	2
A	Richmond Green – Richmond Park	3	2	3	2
A	Beaconsfield Road – Church Street	3	2	3	2
B	Whitton Road – Marble Hill	3	2	3	2
	TOTAL	12	8	12	8

8.25 These routes are illustrated in Figure 8.2. Mystery shoppers were recruited so as not to be familiar with the area.

8.26 The Appendices include additional information concerning the mystery shopping survey including:

- an example mystery shopping record form; and
- maps of the routes actually taken by the mystery shoppers.

Accompanied journeys

8.27 Eight accompanied journeys were carried out in the post-stage of the evaluation. These used the same origins and destinations as the mystery shops. Much like these, they recorded the journey taken to get to the destination, and the information used to get there.

8.28 They also provide more qualitative information on the experience of walking in the pilot area and using Legible London.

8.29 The following table shows the routes taken.

TABLE 8.4 ACCOMPANIED JOURNEYS FIELDWORK SCHEDULE

		Post-stage 13th – 26th July
B	Ellesmere Road – Richmond station	2
A	Richmond Green – Richmond Park	2
A	Beaconsfield Road – Church Street	2
B	Whitton Road – Marble Hill House	2
	TOTAL	8

Survey Outcomes

Pedestrian counts

8.30 Overall, 57,000 people were counted across the four count points on an average weekday. The weekend sees a very similar volume of people, with 54,600 counted in total.

8.31 The busiest count point on a weekday was Richmond station, which is the main entry point for people arriving by public transport. A total of over 29,000 people were seen at this location over 12 hours.

At weekends, the station remained the busiest, with slightly fewer pedestrians counted (26,000 in one day). On both days, the station has a much greater volume of pedestrians than any of the other locations in the Richmond & Twickenham pilot. The quietest count location was Twickenham station on weekdays and weekend days (7,500 and 4,400 people respectively).

8.32 The full count data can be found in Appendix.

8.33 Comparing these counts to last year, in total, the volume of pedestrians counted has increased by 13% on weekdays, and by 11% on weekend days.

8.34 An increase was seen across all the count sites except Richmond George Street/ Hill Street. At the weekend, the volume here had fallen by 2,900 compared to the pre-stage.

8.35 As well as being the busiest location, Richmond station also saw the largest increase on a weekday (up by 6,649 compared to the pre-stage).

8.36 At the weekend, the York Street location increased by the largest proportion, the post-stage saw almost half as many people again as compared with the pre-stage.

FIGURE 8.5 PEDESTRIAN COUNTS BY LOCATION - COMPARISON OF PRE- & POST-STAGES - WEEKDAY

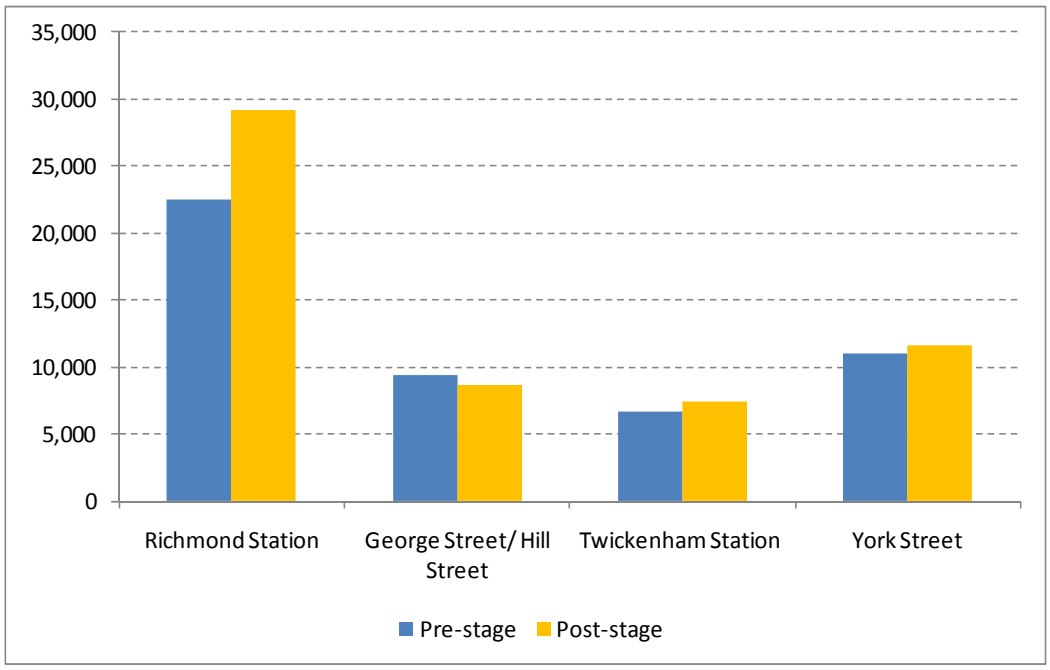
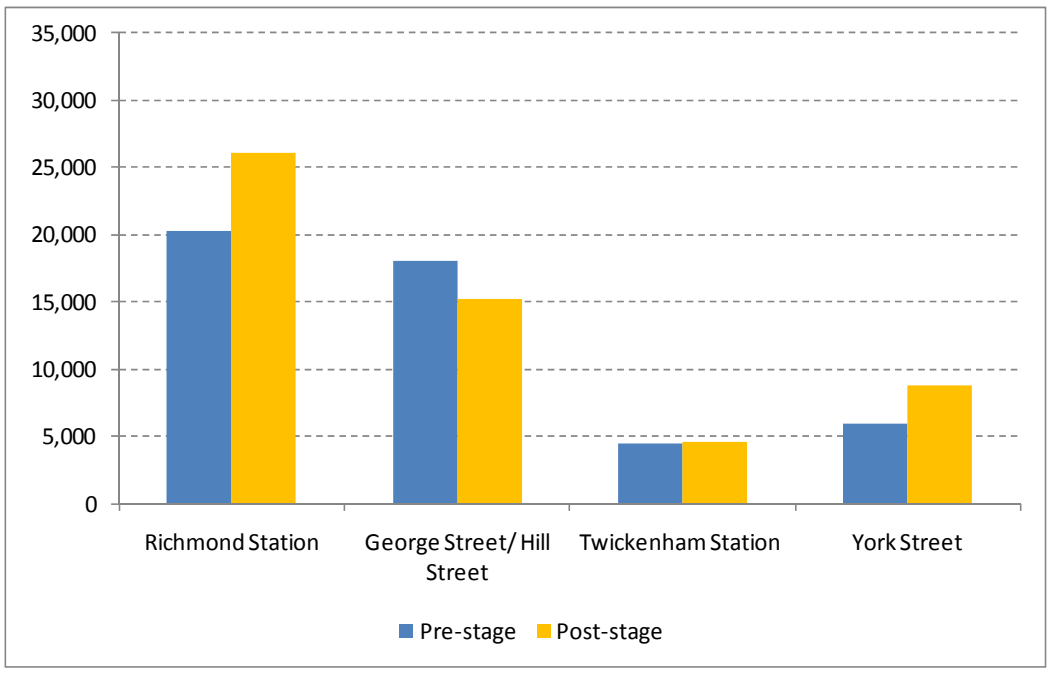


FIGURE 8.6 PEDESTRIAN COUNTS BY LOCATION - COMPARISON OF PRE- & POST-STAGES - WEEKEND



Observations

8.37 As well as counting pedestrians in the pilot area, two observational counts were conducted. These recorded people who stopped and looked at the Legible London monoliths in these locations. The following chart shows the volumes of people using Legible London during the count day.

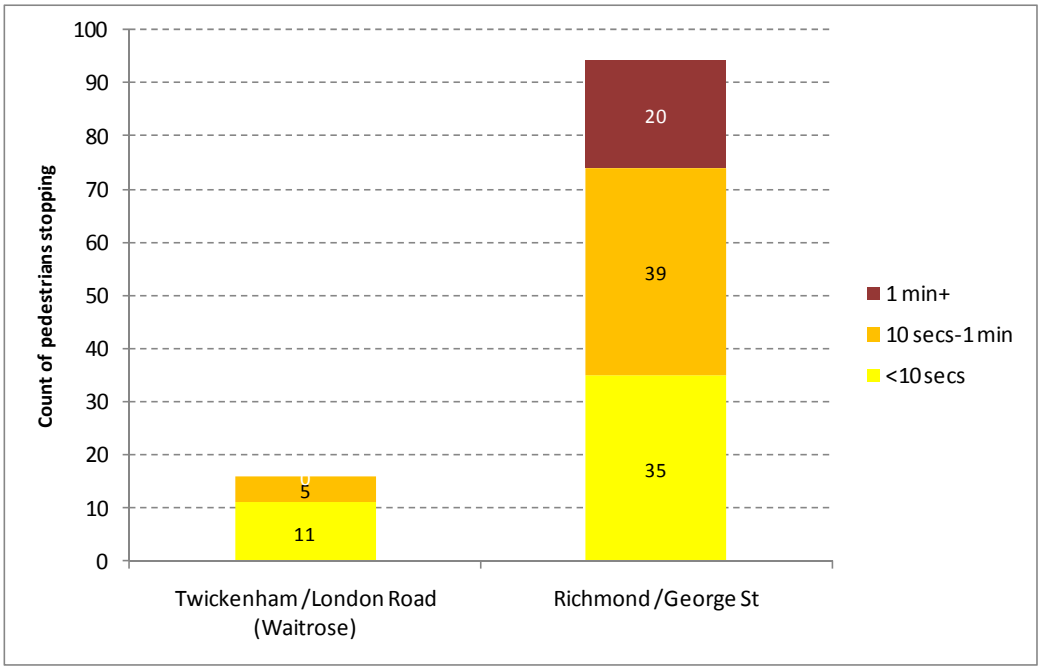
8.38 The chart shows the largest volume of people stopped at the Richmond George Street monolith, compared to Twickenham London Road.

8.39 The Richmond sign saw 94 people across the day, the equivalent of 7.8 people per hour.

8.40 The majority of these people stopped for less than a minute.

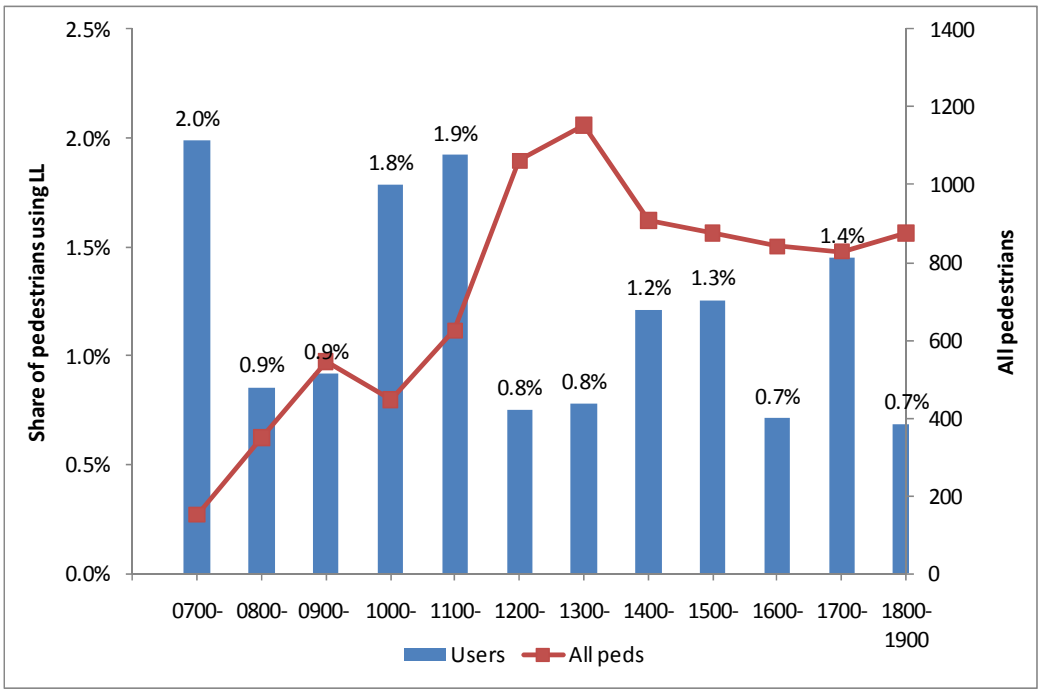
8.41 Twickenham saw only 16 users in the day, with all stopping for less than a minute.

FIGURE 8.7 OBSERVATION COUNTS BY LOCATION - WEEKDAY



8.42 At George Street there were both pedestrian counts and Legible London user counts undertaken enabling us to examine the proportion of pedestrians using the map (Figure 8.8). This proportion varies between 0.7% and 2% depending on the time of day.

FIGURE 8.8 USERS AS A SHARE OF ALL PEDESTRIANS - RICHMOND GEORGE STREET - WEEKDAY



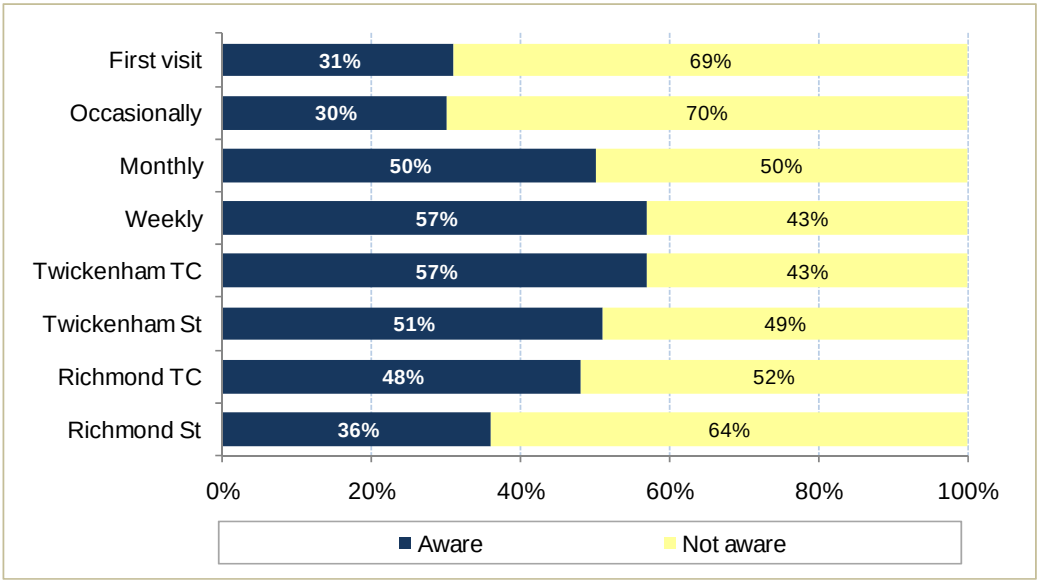
On-street user interviews

Awareness

8.43 Awareness of the Legible London signs across Richmond & Twickenham was 48%, though this was lower at Richmond Station (36%) and amongst less frequent visitors to the area (see Figure 8.9 for the details of awareness by location and frequency of visiting the area).

8.44 The vast majority of pedestrians interviewed were Londoners and were more frequent visitors.

FIGURE 8.9 AWARENESS OF LEGIBLE LONDON



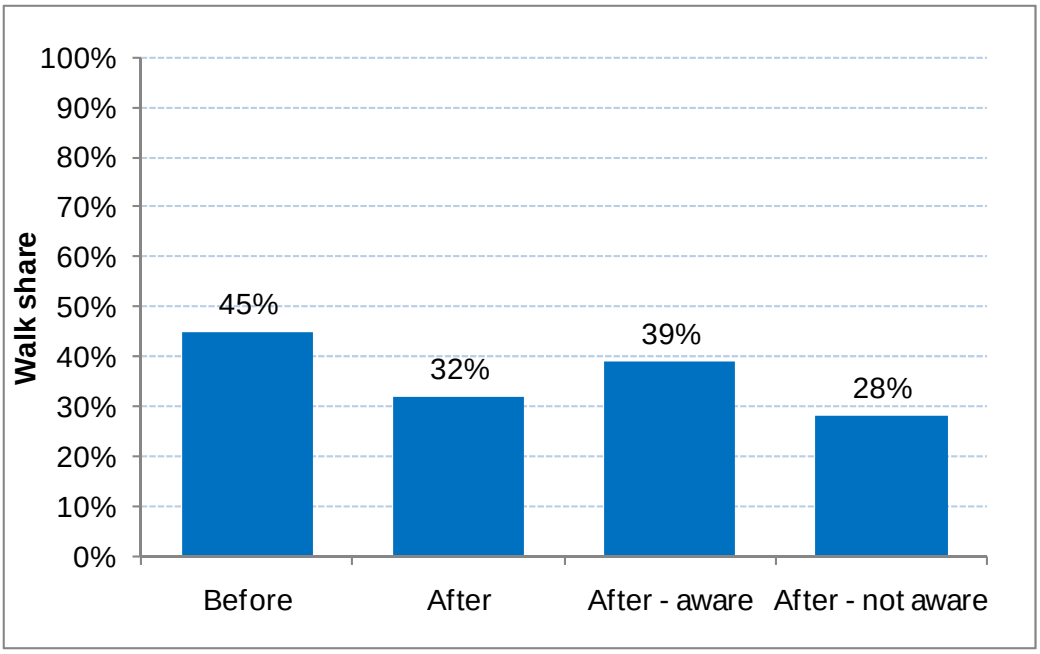
Base post-stage 500 (Not aware includes 'don't know')

Behaviour change and mode shift

8.45 The walk share for travelling to Richmond & Twickenham was 45% in the before survey and 32% in the after survey. Comparing both those aware and those not aware of Legible London shows that both are lower than in the pre-stage, however those aware are more likely to walk to the area.

8.46 There was a slight difference within the pilot as in Richmond, only 17% arrived on foot, with more arriving by public transport, while in Twickenham, 48% walked.

FIGURE 8.10 WALK SHARE FOR TRAVEL TO THE AREA



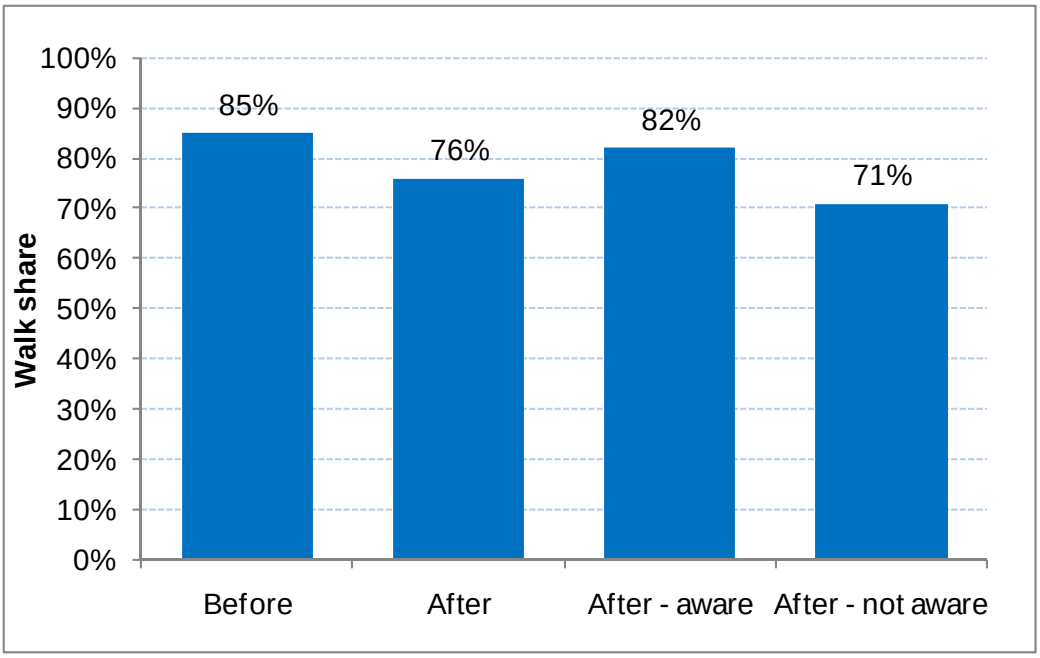
Base before 833, after aware 238, after not aware 255

8.47 Walk is the dominant mode for travel within the area, as shown in Figure 8.11. This is true both before and since implementation, although the share has dropped significantly, at least amongst those not aware of Legible London (it has fallen by a much smaller share for those aware of Legible London compared to those who are not aware).

8.48 The walk share may have changed as a result of a significantly larger proportion of people stating that they lived/were already within the area compared to the pre-stage.

8.49 The post-stage saw significant declines in use of most modes for travel within the pilot area. For example, bus stood at 23% in the pre-stage, down to 16% in the post-stage.

FIGURE 8.11 WALK SHARE FOR TRAVEL IN THE AREA



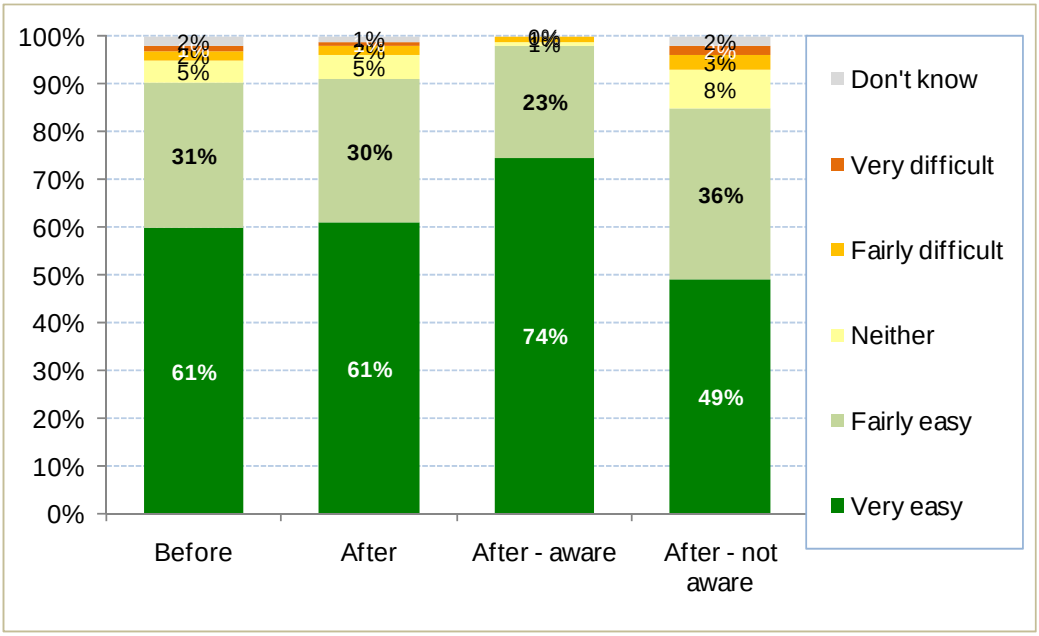
Base before 833, after aware 238, after not aware 255

Wayfinding

8.50 The following measures show how the ability to wayfind within the pilots has changed with the implementation of Legible London. While initially it appears that things have not become more positive overall, the differences seen between those aware of Legible London and those not signify the impact of the scheme.

8.51 Overall, the proportions of people saying that finding their way around the area is very or fairly easy was rated much the same in the pre- and post-stages. However, satisfaction with the ease of finding your way around on foot was noticeably higher for those aware of Legible London compared with those unaware, as evident in Figure 8.12. In fact, 97% of those aware of Legible London thought it was very or fairly easy to find their way round the area.

FIGURE 8.12 EASE OF FINDING WAY ROUND AREA BY FOOT

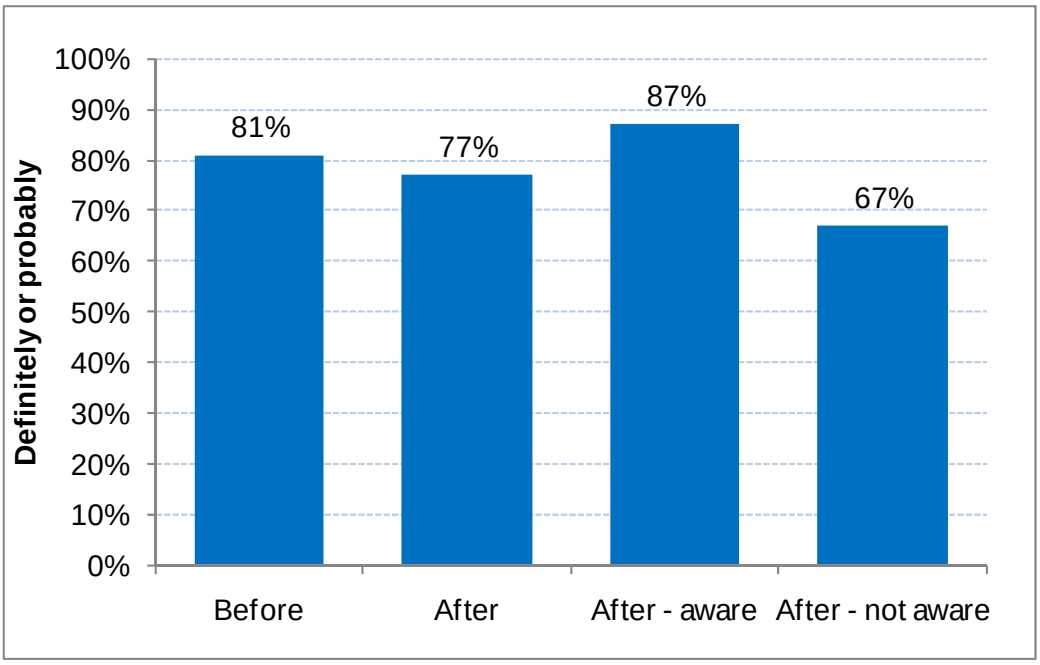


Base before 833, after aware 238, after not aware 255

THE OVERALL PROPORTION OF PEOPLE WHO SAID THEY WOULD BE ABLE TO FIND THEIR WAY FELL SLIGHTLY FROM THE BEFORE WAVE. NEARLY NINE OUT OF TEN PEDESTRIANS AWARE OF LEGIBLE LONDON SAID THEY WOULD KNOW HOW TO FIND THEIR WAY TO A PARTICULAR DESTINATION BY FOOT, A SIGNIFICANTLY HIGHER PERCENTAGE THAN THOSE NOT AWARE OF LEGIBLE LONDON, INDICATING A POSITIVE IMPACT OF THE SCHEME (SEE

8.52 Figure 8.13).

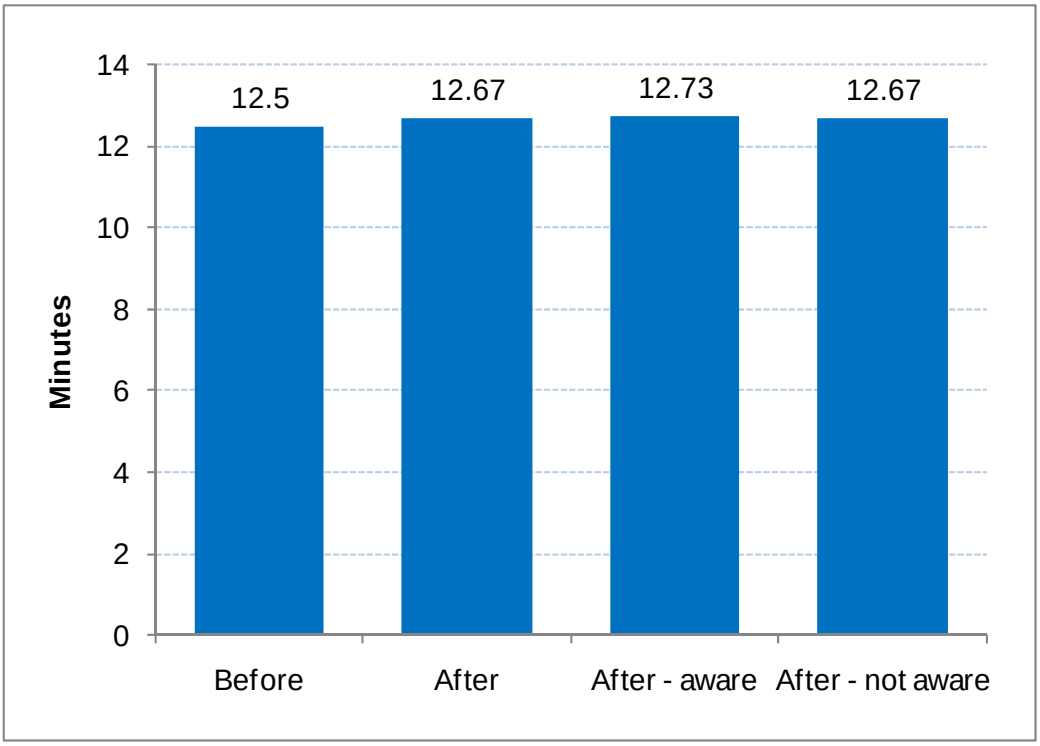
FIGURE 8.13 WOULD YOU KNOW HOW TO FIND YOUR WAY BY FOOT?



Base before 833, after aware 238, after not aware 255

8.53 There was no real difference in the estimated times to the nominated destination between the aware and unaware groups. However, the ability to estimate the journey time accurately correlated with the respondents' familiarity with the area.

FIGURE 8.14 AVERAGE ESTIMATED TIME TO DESTINATION



Base before 833, after aware 238, after not aware 255

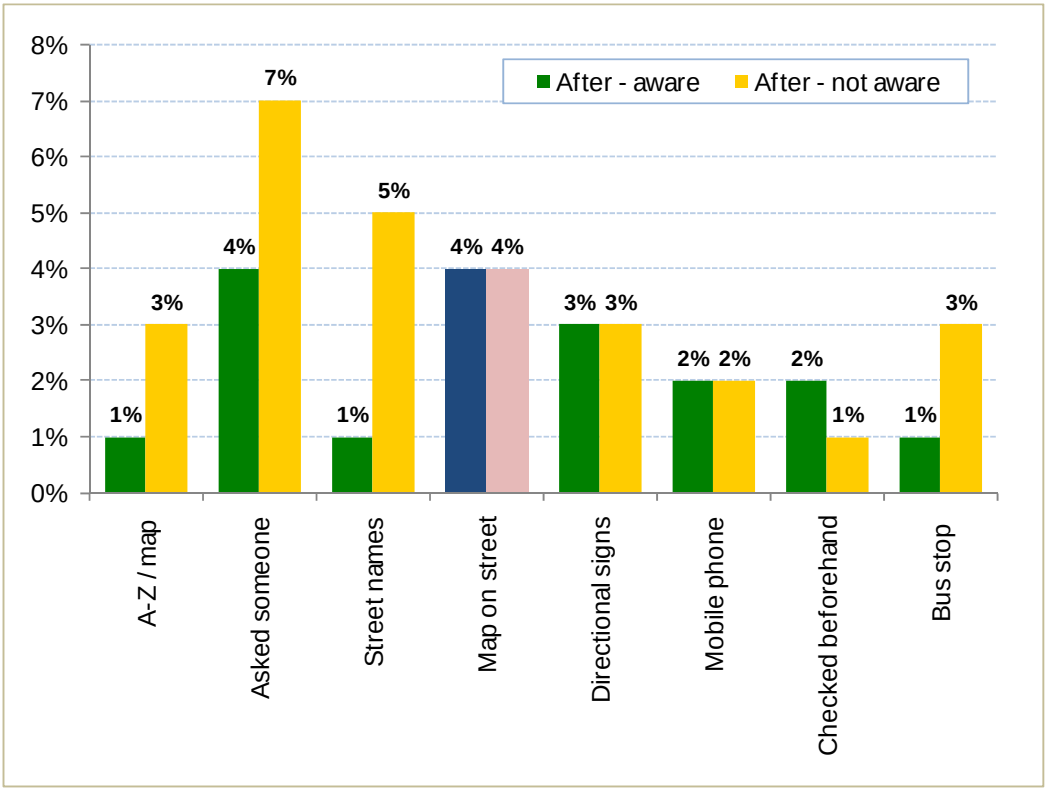
8.54 There were some differences in journey time estimating by route:

- Those interviewed at Richmond station were asked for an estimate for walking to Richmond Bridge. The majority gave an estimate below the expected[18] while 16% were correct in their estimate.
- From Richmond Town Centre, estimates were for walking to Richmond Park: the vast majority gave times shorter than expected.
- Half of people gave shorter than expected times for walks between Twickenham Station and Church Street. A similar proportion said longer times.
- From Twickenham Town Centre to Marble Hill House, the majority said longer times than expected.

8.55 The majority of people did not use any information during their visit to the pilot area. Over half of people stated that they did not require any information. Amongst those who use information, people are most likely to ask someone else.

8.56 Some 4% of pedestrians said they used a map on the street as an information source (Figure 8.15). There were some differences between the sources used by those aware versus those not aware of Legible London, with the latter group more likely to ask someone or use street names.

FIGURE 8.15 INFORMATION SOURCES USED



Base after aware 238, after not aware 255

18 Expected times are taken from TfL's journey planner

8.57 In terms of information used to navigate from stations (amongst those who arrived in the area by train/ Underground), a similar pattern was seen to above. Asking someone, A-Z/ printed maps, and checking before travel were most mentioned.

Attitudes

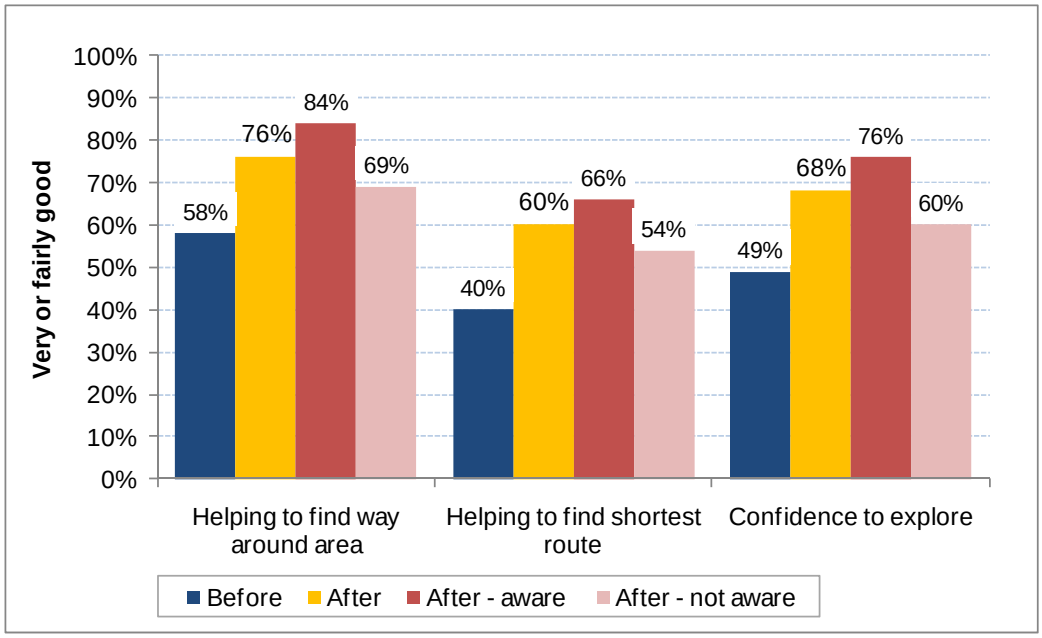
8.58 The ratings of local signage given below are a good indication of the impact of Legible London.

8.59 The share saying the local signs were very or fairly good was greater in the post-stage than in the pre-stage. The share increased significantly for all three statements.

8.60 Those aware of Legible London were more likely than those not aware to give a rating of very or fairly good in terms of:

- Helping to find way around the area (84% v 69%);
- Helping to find shortest route (66% v 54%);
- Giving confidence to explore the area (76% v 60%).

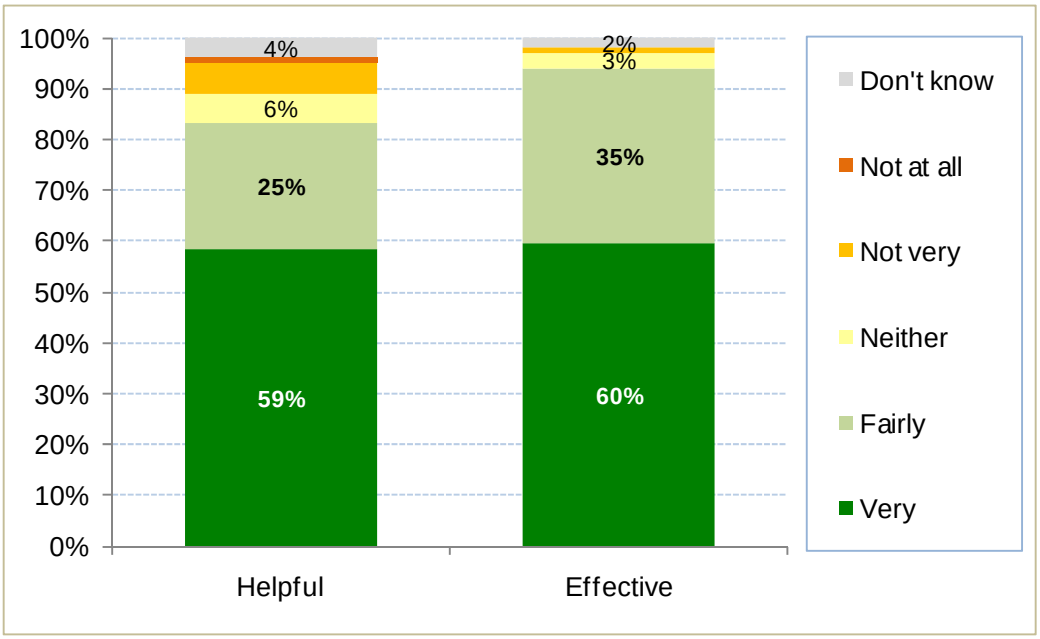
FIGURE 8.16 RATINGS OF LOCAL SIGNAGE



Base before 833, after aware 238, after not aware 255

8.61 Overall, those aware of Legible London were positive about the helpfulness and effectiveness of the scheme. As shown in Figure 8.17, 95% rated it as very or fairly effective.

FIGURE 8.17 HELPFULNESS AND EFFECTIVENESS OF LEGIBLE LONDON

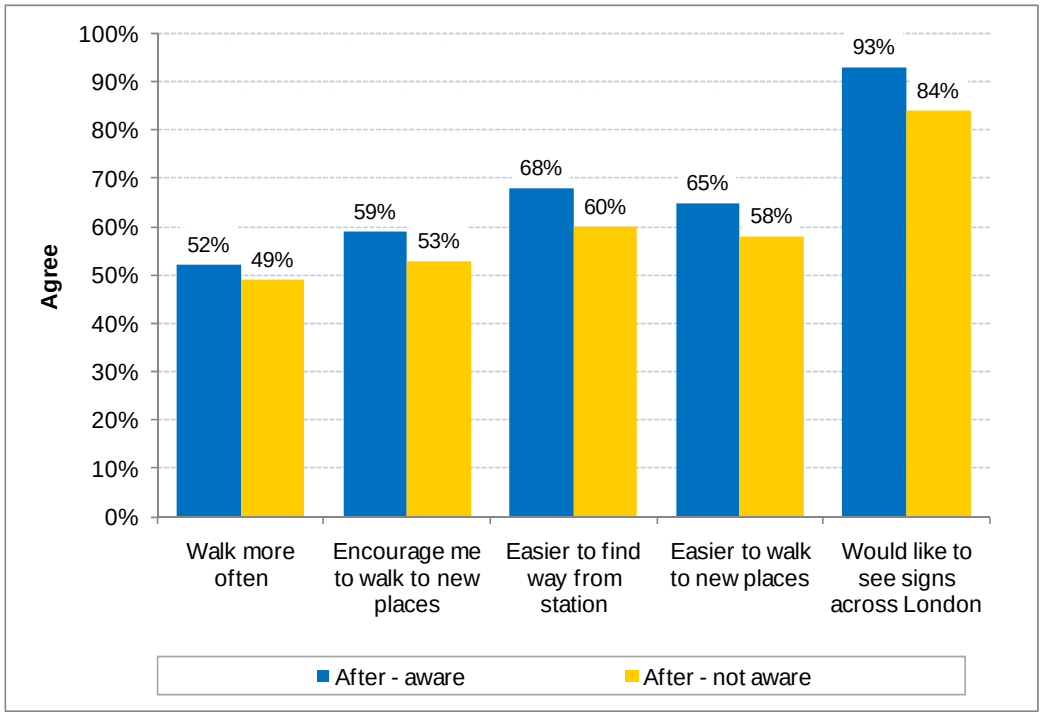


Base post-stage aware 238

8.62 Amongst a range of attitude statements, the one receiving the most positive level of agreement was the signs should be rolled out to other locations in London. The vast majority of respondents, particularly amongst those aware of Legible London, agreed with this.

8.63 Agreement was generally high for all the statements as seen below, and in all cases it was higher for those aware than those not aware.

FIGURE 8.18 ATTITUDE STATEMENTS



Base after aware 238, after not aware 255

Summary

TABLE 8.5 ON-STREET SURVEY KEY INDICATORS FOR RICHMOND & TWICKENHAM

	Pre (2009)	Post (2010)	Difference
Awareness	n/a	48%	n/a
	% very/quite good	*% very/quite good*	
Signage for finding way around area	58%	84%	+ 26
Signage for helping to find shortest route	40%	66%	+ 26
Signage for giving confidence to explore	49%	76%	+ 27
	% definitely/ possibly	*% definitely/ possibly*	
Would you know how to find your way	81%	87%	+ 6
Estimated length to destination	12.48	12.73	+ 0.25
		% Agree	
I would like to see Legible London across London	n/a	93%	n/a
Legible London encourages me to walk to new places	n/a	59%	n/a
		% Fairly / very	
Effective	n/a	93%	n/a
Helpful	n/a	68%	n/a
	%	%	
Walked to area	45%	39%	- 6
Walked within area	85%	82%	- 3
Walk trip in area at least once a week	59%	66%	+ 7

Notes: Ratings of signage based on five point scale: very poor, fairly poor, neither good nor poor, fairly good, very good

"Would you know how to find your way" based on a four-point scale: definitely, probably, probably not, definitely not

Attitude statements on a five point scale: agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, disagree strongly

Effective / Helpful on a five point scale: very, fairly poor, neither, not very, not at all

Ratings for post-survey based on respondents aware of Legible London only

PERS Audits

8.64 The PERS legibility audit of identified the following key findings:

General impressions

8.65 Richmond audit area

- Historic environment with several iconic buildings;
- High street environment with a number of cafés, pubs and restaurants, which can encourage users to linger in the area;
- Two obvious public spaces, one being Richmond Green and the second the river front;
- Poor permeability around the station, particularly crossing Kew Road;
- Heavily trafficked, particularly on George Street, The Quadrant and Hill Street.

8.66 Twickenham audit area

- High Street environment with a number of shops, cafés and restaurants;
- Heavily trafficked particularly on London Road;
- Appears to have poor permeability on London Road and outside the station.

PERS audit findings

8.67 In the pre-stage legibility was assessed to be relatively poor across both areas. The limited signage which was available was inconsistent and did not always provide information to major destinations. Positively, bus stops were visible and provided some information.

8.68 In Richmond, many links had minimal amounts of pedestrian signage or wayfinding information. There was a lack of signage to destinations such as Richmond Green and Richmond Palace, and a lack of continuity of signage for other routes.

8.69 There was very little wayfinding information directly outside Richmond Rail Station and a number of pedestrians were observed exiting the station and attempting to orientate themselves.

8.70 The existing signs provided used white writing on a brown background, although this is not best practice and can be difficult to read. This information also lacked walking distances and times. Additionally, some streets were relatively cluttered with street furniture, cycle parking and other signage.

8.71 In Twickenham, a lack of pedestrian information was evident in the pre-stage, leading to legibility receiving low scores. Signage which was provided was inconsistent and sometimes confusing. For example, outside Waitrose supermarket there is a small map of the area but there is no signage or map continuity after this point. The map is also fairly difficult to read and interpret.

8.72 The post-stage has seen an improvement in scores for legibility and wayfinding around the area due to the installation of Legible London, as seen in the following tables.

TABLE 8.6 AVERAGE CHANGES IN PERS LEGIBILITY SCORES – RICHMOND

Parameters audited	Mean average 'before' score	Mean average 'after' score	Mean average change
Link: legibility	-2.2	+1.9	+4.1
Link: signage legibility for disabled people	-2.1	+2.9	+5.0
Link: pedestrian signage obstructions	+2.4	+2.4	0
PTWA: information to the waiting area	+0.4	+2.0	+1.6
PTWA: information at the waiting area	-1.0	+1.1	+2.1
Route: legibility	-2.4	+1.6	+4.0

Scores from -3 to +3

TABLE 8.7 AVERAGE CHANGES IN PERS LEGIBILITY SCORES – TWICKENHAM

Parameters audited	Mean average 'before' score	Mean average 'after' score	Mean average change
Link: legibility	-2.0	+1.8	+3.8
Link: signage legibility for disabled people	-1.5	+2.4	+3.9
Link: pedestrian signage obstructions	+2.8	+2.8	0
PTWA: information to the waiting area	-0.5	+1.6	+2.1
PTWA: information at the waiting area	-1.3	-1.3	0
Route: legibility	-1.2	+1.4	+2.6

Scores from -3 to +3

8.73 Improvements in legibility were noted in particular at the junction of Sheen Road and the Quadrant in Richmond, and York Street and London Road in Twickenham. The lack of information outside Richmond station was seen as a gap in provision, which could easily improve legibility for pedestrians. Bus stop information provided close by was however useful for the same purpose.

8.74 Some of the bus stops in Richmond have had Legible London maps installed in them, while those in Twickenham have not. The effect on scores is seen in the above tables (PTWA: information at the waiting area). Information to get to the stops was adequate and Legible London helped to increase these scores by clearly showing bus stop locations on the maps. One suggestion for improvement was to include the bus stop reference number/ letter on the maps.

8.75 Of the routes audited four out of five in each area scored positively. In Richmond, the route to Ellesmere Road had little information, although this is a largely residential part of the pilot with no major destinations.

8.76 In Twickenham, information provision to Marble Hill House was seen to decline on leaving the town centre.

8.77 Generally, signage was not seen to cause any obstructions.

Mystery Shopper Journeys

This section is based on a small number of surveys and results should be taken as illustrative.

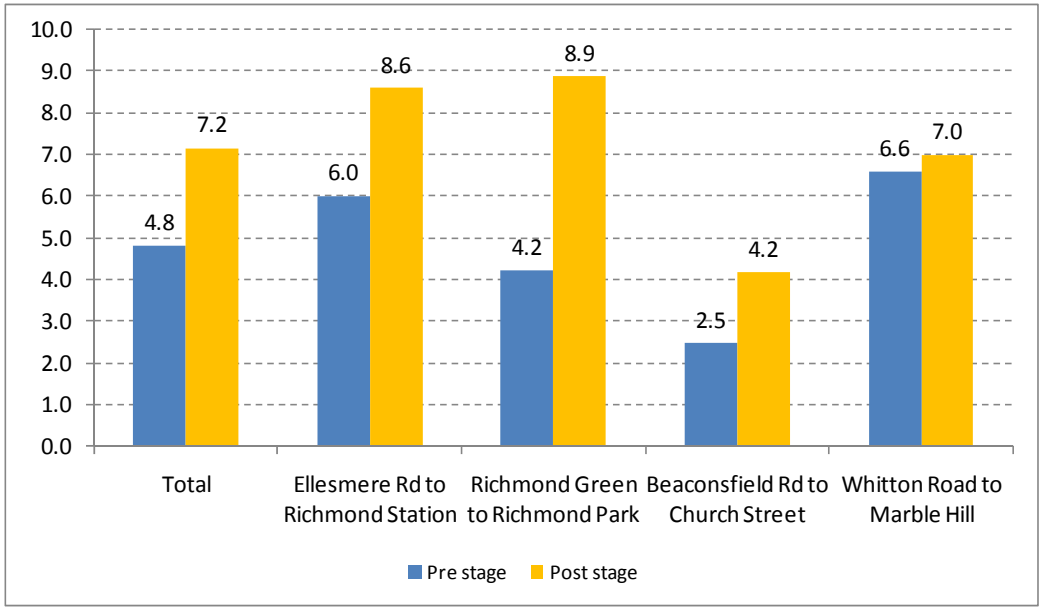
The mystery shopper journeys are designed to provide detailed feedback on the actual (rather than perceived) ease of wayfinding after compared with pre-implementation. While these surveys are not subject to the same type of random error/ variability inherent in customer surveys, the relatively small number of mystery shops should be taken into account and the results treated as indicative rather than definitive. The mystery shopper research is useful for providing a different perspective compared with the user surveys. For example, the on-street surveys are based on perceptions of how easy people think it is to navigate based on their experience, whereas the mystery shoppers are recording what actually happens.

8.78 The figures below indicates the outcomes of the mystery shopper evaluations for the sample journeys undertaken, comparing the results with those from the pre-stage.

8.79 The first chart Figure 8.19 shows the overall mean satisfaction score for each of the four routes. Note that this is based on the average of the scores awarded at each point during the walk where there was a wayfinding activity undertaken.

8.80 Overall, satisfaction has increased comparing before and after. In addition, for each individual route, the satisfaction scores were higher in the post-survey compared with the pre-survey. This was most notable for the Richmond Green to Richmond Park route where the score increased from a poor 4.2 (out of 10) to a very good 8.9.

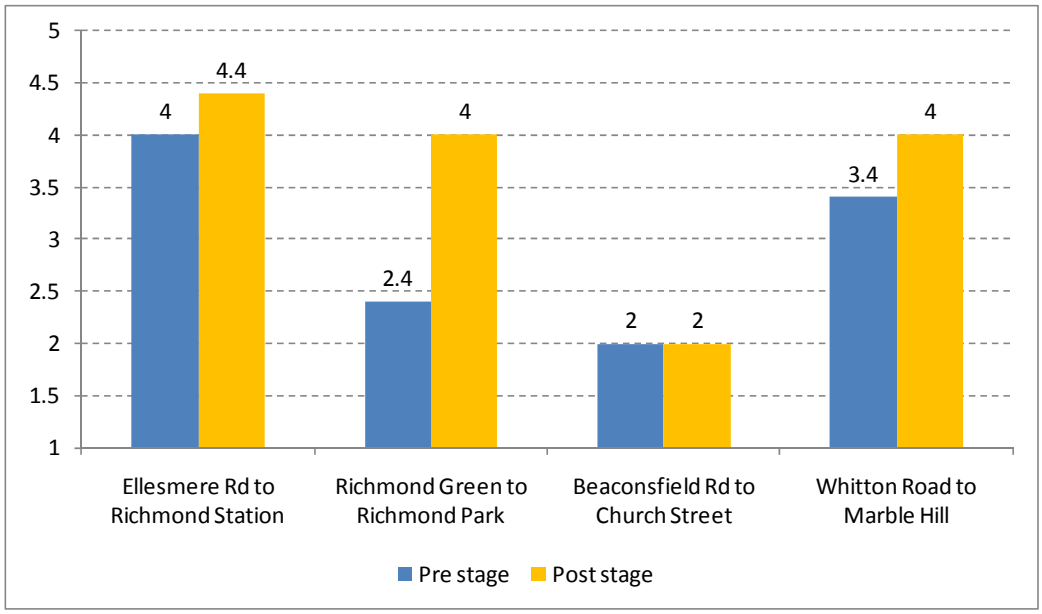
FIGURE 8.19 MEAN SATISFACTION SCORES - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



Base pre-stage 25, post-stage 25. Where 0 = dissatisfied, and 10 = satisfied

8.81 Ratings for the ease of finding your way are shown in Figure 8.20. Overall, the average score increased since the pre-stage. For all routes except Beaconsfield Road to Church Street the post-implementation scores are quite high (4+ out of 5) and above those for the pre-stage. In the case of Beaconsfield Road to Church Street, the score remained a poor 2 out of 5.

FIGURE 8.20 MEAN SCORE "OVERALL, HOW EASY DID YOU FIND IT TO FIND YOUR WAY?" - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



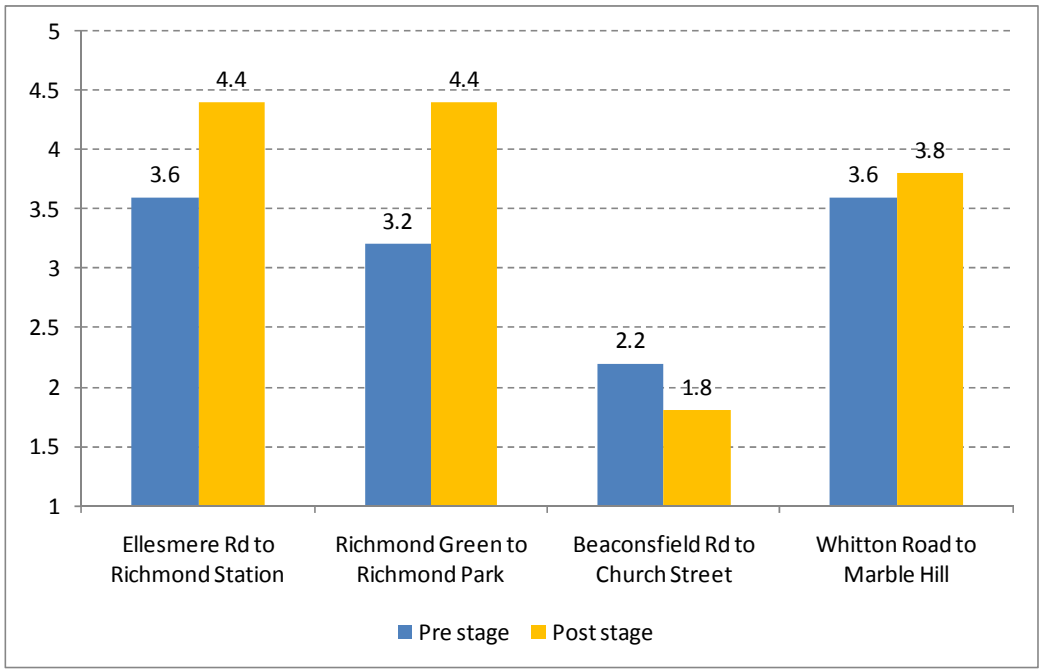
Base pre-stage 25, post-stage 25. Mean scores where 1 = very hard, to 5 = very easy

Post-Stage Analysis

8.82 Again, across all the routes in total, the score was seen to increase from before to after the implementation of Legible London. At a route level, the ratings for the quality of signs largely mirror those of 'ease of finding your way', with Beaconsfield Road to Church Street being the only route receiving a poor score, and one which had not improved post-implementation (see Figure 8.21).

8.83 The scores for the two Richmond routes achieved very good scores (4.4 out of 5) in the post-stage,

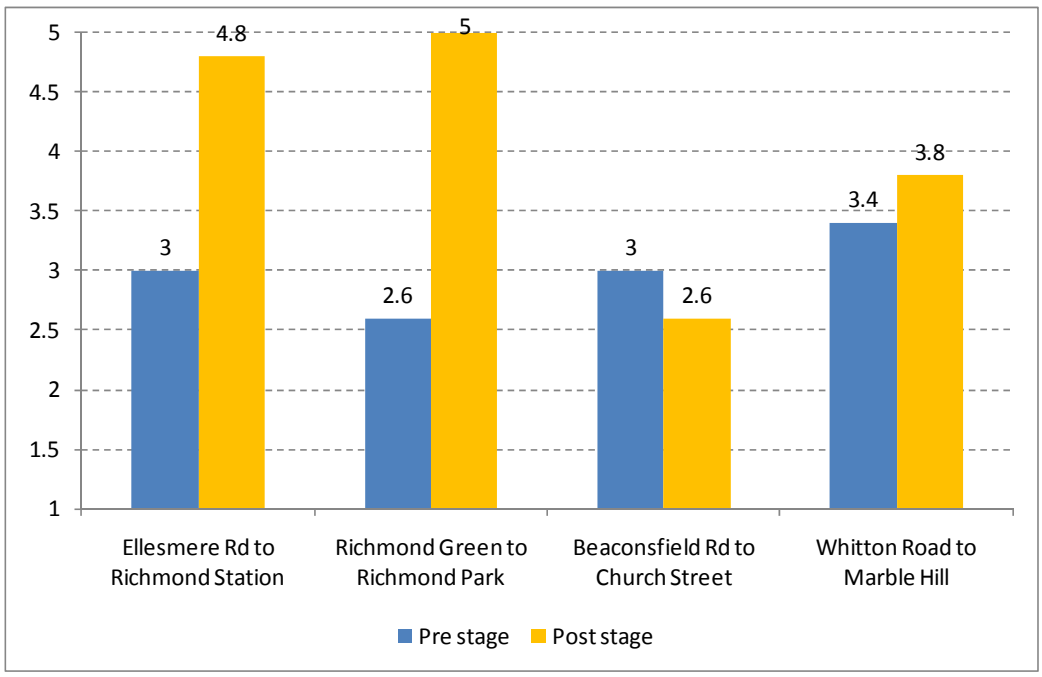
FIGURE 8.21 MEAN RATINGS OF THE QUALITY OF THE SIGNS FOR PEDESTRIANS – BY ROUTE – COMPARISON OF PRE- & POST-STAGES



Base pre-stage 25, post-stage 25. Mean scores where 1 = very poor, to 5 = very good

8.84 Broadly the same result applies to the ratings of the quality of maps (Figure 8.22), although in this case the improvement post-Legible London is even more marked for the two Richmond routes, with both scores showing signs were considered 'very good'.

FIGURE 8.22 MEAN RATINGS OF THE QUALITY OF ANY MAPS USED - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



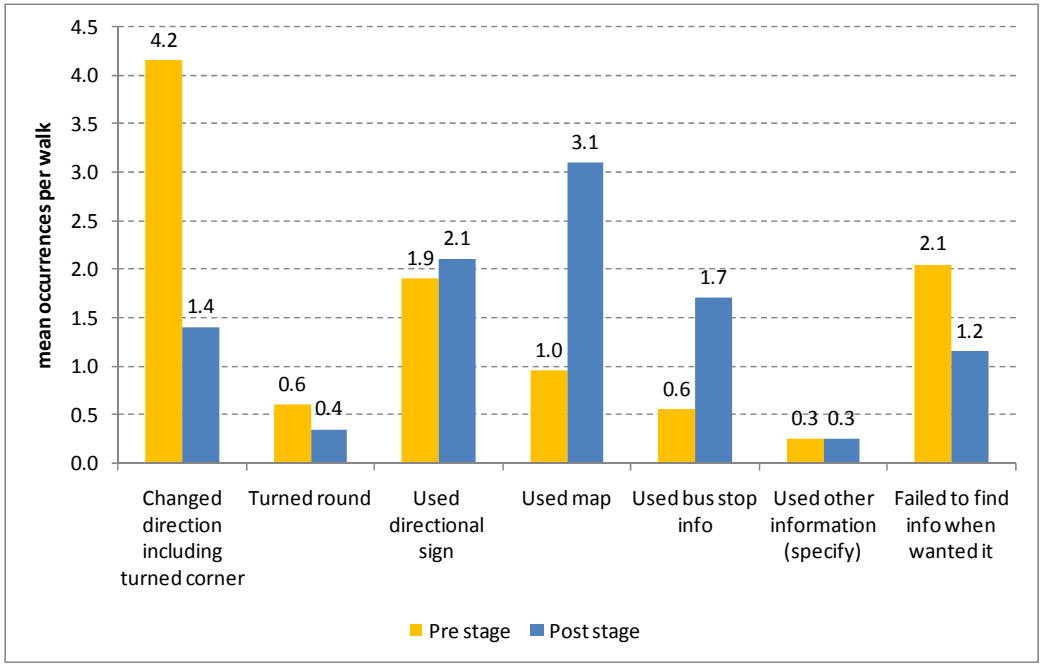
Base pre-stage 25, post-stage 25. Mean scores where 1 = very poor, to 5 = very good

8.85 The next chart (Figure 8.23) compares the wayfinding actions pre- and post-implementation, showing the mean occurrences of mentions of behaviours per walk. In the pre-stage the most frequently mentioned action was changing direction, while in the post-stage using a map was more frequently mentioned.

8.86 Overall, an increase in use of maps and bus stop information is revealed. On average maps were used 2.1 times more per journey in the post-stage than in the pre-stage.

8.87 Positively, a decrease was seen in changing direction (down by 2.8 occurrences a walk), and failing to find information (down by 0.9 occurrences per walk). In addition, it appears slightly fewer occurrences of turning round were seen.

FIGURE 8.23 MEAN COUNT OF WAYFINDING BEHAVIOURS RECORDED BY WALK – SOUTH BANK - PRE- & POST-STAGES



Base pre-stage 25, post-stage 25

8.88 The wayfinding actions in the post-stage are compared by route in Figure 8.24. What is particularly noticeable is the number of occasions when the mystery shopper failed to find information on the Beaconsfield Road to Church Street route (helping to explain some of the poor satisfaction ratings awarded to this route). However, there were relatively large counts of using maps, direction signs and bus stop information.

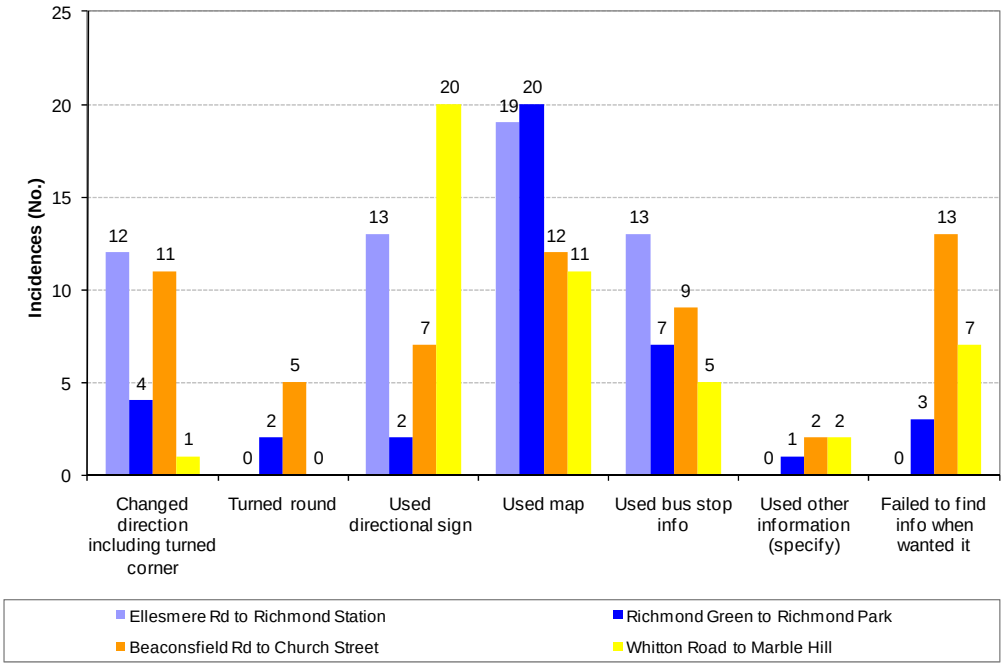
8.89 The actual routes taken were recorded by respondents and can be seen in the Appendices. Some differences were seen from the individual routes:

- Ellesmere Road to Richmond Station – these walks started outside the area covered by monoliths, however a directional sign was available close to the route start point and was then followed by other direction signs and bus stop maps. Upon reaching the Richmond Road none of the participants had any trouble navigating. Satisfaction remained high throughout these journeys.
- Richmond Green to Richmond Gate – maps were seen at the start of the walk, and most then continued to see further maps and had no problems reaching their destination quickly. One mystery shopper had to turn round due to realising they were in the wrong road based on the information they had seen, and another missed the information at the Petersham Road/ Richmond Hill junction. They then had to ask a passer-by in order to get back on the correct route, as no other information is available south of this junction on either road.
- Beaconsfield Road – Church Street – the maps of the routes taken by the mystery shoppers on this walk show the very long and mis-directed routes that were taken by the mystery shoppers. All but one took a route which involved retracing steps. No information was available at the start point or close by. Useful road signs and bus stop information were looked for but not found in most cases, and information at St

Margarets station was also consulted. For one, the destination was found accidentally when no information was found during the journey. Satisfaction improved little throughout the walks until maps were found closer to the destination.

- Whitton Road to Marble Hill House – there was a lack of information at the very start of the route, but all mystery shoppers walked the right way down Whitton Road and all but one found information directing them to Twickenham station where further information was available. The other mystery shopper asked a passer-by as no information was found, and also went to the station. From here, the routes taken were generally very similar, although the information used was mixed.

FIGURE 8.24 WAYFINDING BEHAVIOURS RECORDED – BY ROUTE – POST-STAGE



Base pre-stage 25, post-stage 25

8.90 In total, 23 occurrences of failing to find information were recorded. On the Richmond Green to Richmond Gate route, this was on one walk and occurred around Hill Street, and the further up Richmond Hill at the Petersham Road junction.

8.91 On the Whitton Road walk no information was found at the start of the walk for two mystery shoppers, and another struggled at Regal House (London Road).

8.92 The walk from Beaconsfield Road elicited a failure to find information on all but one walks. Generally as well as a lack of information on this route, the destination was not found on some sources. Some of the locations where information was not found were at the very beginning of the walk, as well as Crown Road/ Richmond Road, and Chertsey Road.

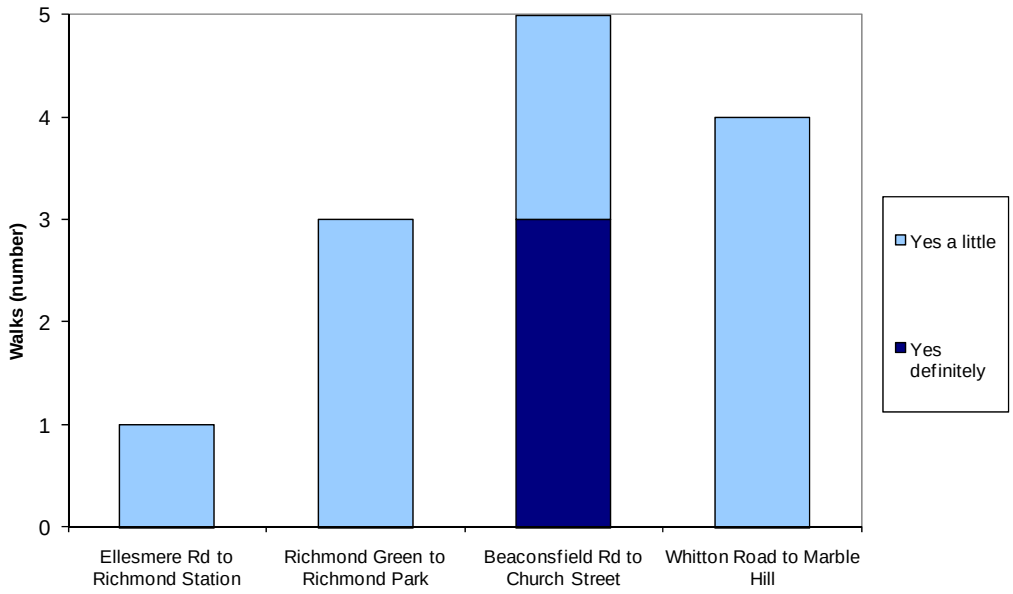
8.93 In addition, respondents were asked if there were any locations where they expected to see information but did not. The locations where this applied included Quadrant Road and

Richmond Hill. There were also mentions of locations outside the pilot areas e.g. Crown Road

8.94 In addition, George Street was mentioned as not being immediately obvious, although the monolith here was found after the mystery shopper looked for it.

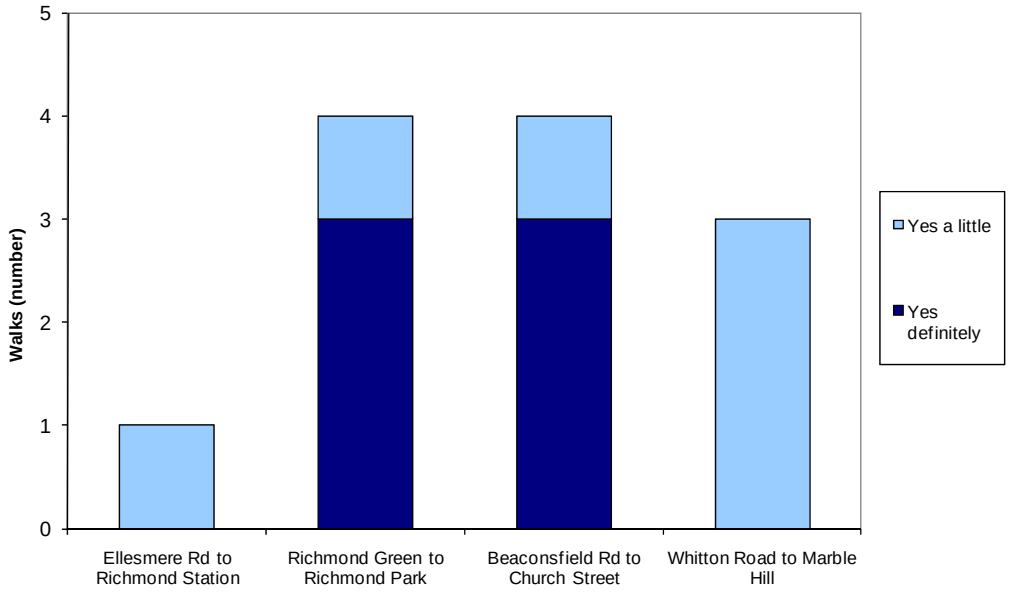
8.95 The next two charts (Figure 8.25 and Figure 8.26) identify the number of mystery walks on which the researcher felt lost. In the post-stage it was only on the Beaconsfield Road to Church Street route where any of the mystery shoppers definitely felt lost, whereas in the pre-stage this was the case not just for this route but also the Richmond Green to Richmond Park route.

FIGURE 8.25 WHETHER FELT LOST AT ANY POINT IN WALK – POST-STAGE



Base pre-stage 25, post-stage 25

FIGURE 8.26 WHETHER FELT LOST AT ANY POINT IN WALK – PRE-STAGE



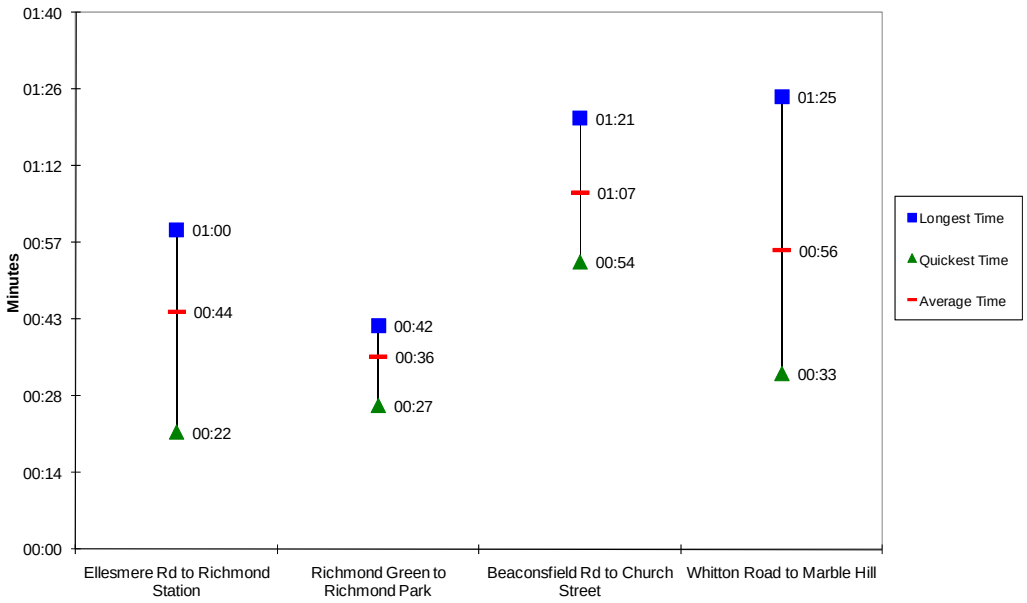
Base pre-stage 25, post-stage 25

8.96 The range of times taken to walk the four routes in the post-stage is shown below. The Whitton Road to Marble Hill route exhibited the widest range of times with a difference of nearly an hour between the shortest and longest trip (a much wider range than in the pre-stage). On the other hand, the Richmond Green to Richmond Park route had a range of times of only 15 minutes (in the pre-stage survey this was over an hour, with the shortest walk being longer than the longest walk in the post-stage).

8.97 For the Whitton Road route, the two respondents who did not fail to find information at all walked to the destination in around 35 minutes, while the others took 56 mins – 1 hour 25 mins.

8.98 Similarly on the Ellesmere Road route, the respondents who stated a location where they expected to see information but didn't take much longer to complete the route.

FIGURE 8.27 TIME TAKEN FOR MYSTERY WALK – BY ROUTE – POST-STAGE

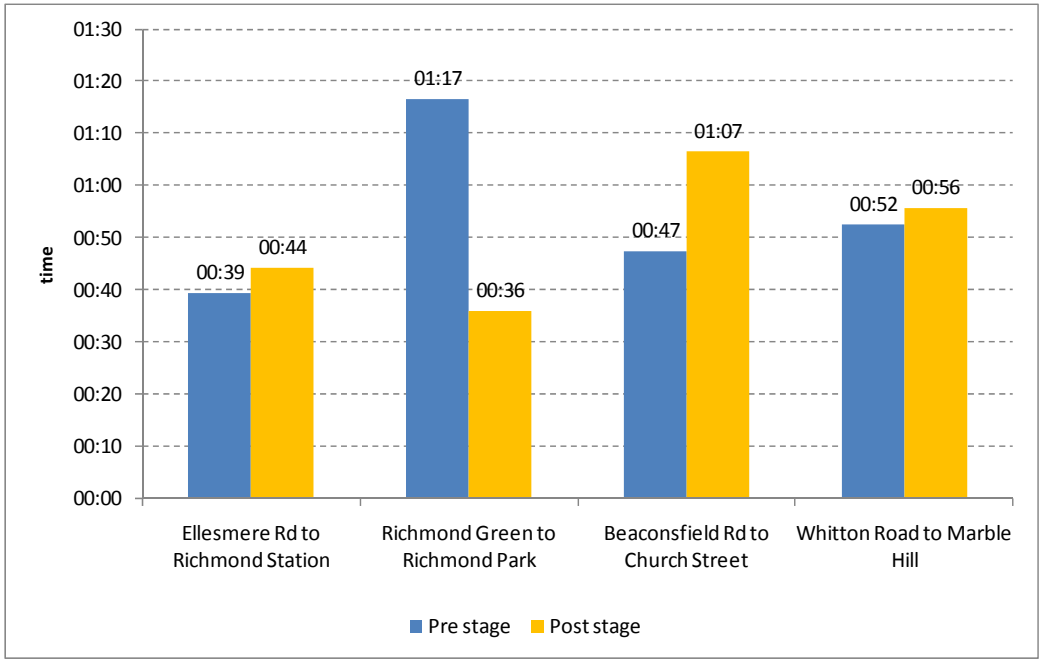


Base pre-stage 25, post-stage 25

8.99 Comparing the mean times between the pre- and post-stages (Figure 8.28), shows that the average times were quite similar for the Whitton Road to Marble Hill and Ellesmere Road to Richmond station routes, higher in the post-survey for the Beaconsfield Rd to Church Rd route, and considerably reduced for the Richmond Green to Richmond Park route.

8.100 The route with the greatest improvement in journey time, Richmond Green to Richmond Park, was also the one with the greatest increase in satisfaction.

FIGURE 8.28 AVERAGE TIME TAKEN FOR MYSTERY WALK - BY ROUTE - COMPARISON OF PRE- & POST-STAGES



Base pre-stage 25, post-stage 25

8.101 When asked how the journey time compared to expectations, the mean score given showed that the time was as expected. The score was lowest (took longer than expected) for the Beaconsfield Road route and highest (took less time than expected) for the Richmond Green route.

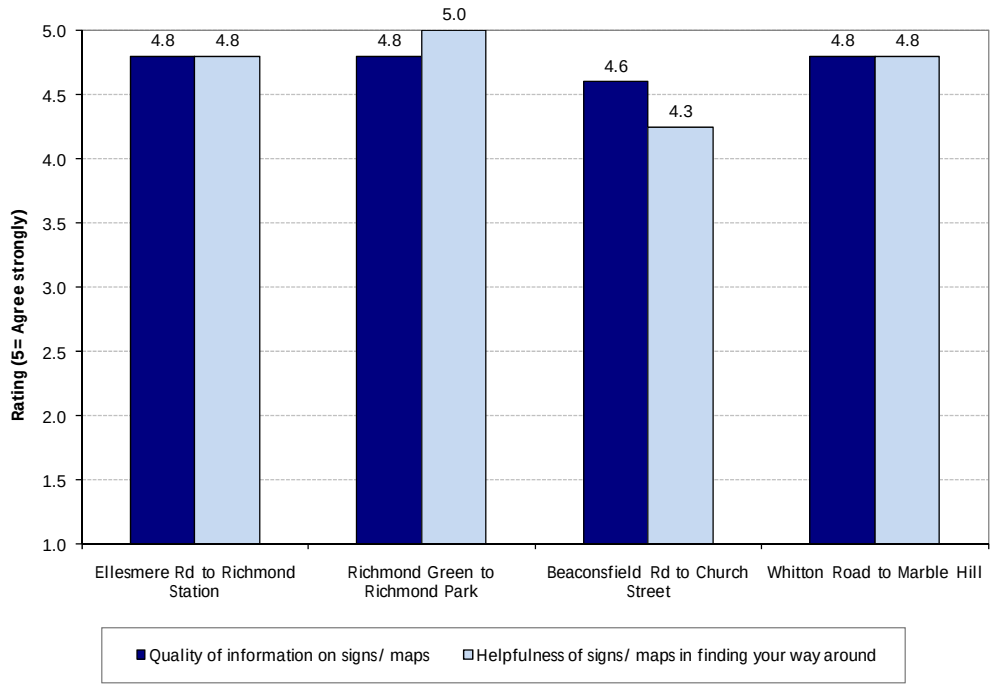
Legible London specific questions

8.102 In the post-stage, respondents were also asked a series of direct questions about Legible London. They were not shown this before their walk, so they would not be prompted into noticing the scheme.

8.103 All mystery shoppers said they had seen Legible London during their walk, and all but one had used it.

8.104 Overall, scores for the quality and helpfulness of the information provided was rated very highly, with all scores at 4.3 or more (out of a maximum of 5).

FIGURE 8.29 MEAN SCORES FOR QUALITY & HELPFULNESS OF INFORMATION – BY ROUTE – POST-STAGE



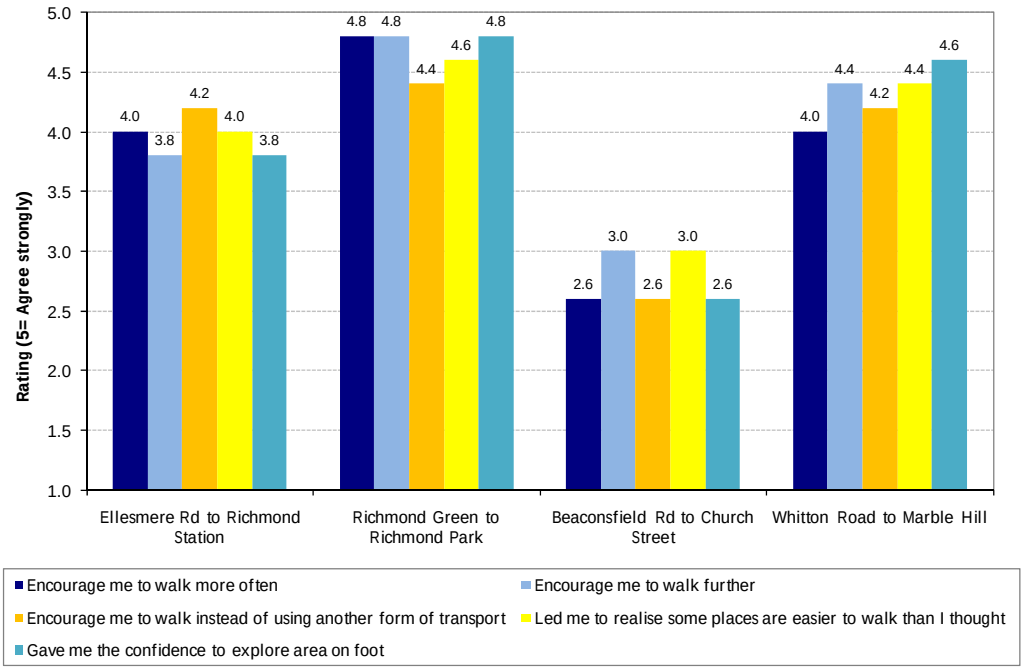
Base pre-stage 25, post-stage 25

8.105 Respondents were also asked to rate their agreement with a number of statements relating to the impacts of Legible London, with the results shown in Figure 8.30. The less positive responses by those mystery shoppers on the Beaconsfield Road to Church Street route are very noticeable, and likely relating to this route being the only one where the mystery shoppers definitely felt lost, as in Figure 8.25, and receiving the lowest satisfaction scores.

8.106 Aside from this route, attitudes were very positive with high levels of agreement that Legible London:

- Encourages me to walk more often;
- Encourages me to walk further;
- Encourages me to walk instead of using another form of transport;
- Led me to realise some places are easier to walk than I thought; and
- Gave me the confidence to explore area on foot.

FIGURE 8.30 AGREEMENT WITH STATEMENTS ABOUT SIGNS AND MAPS IN THE AREA – MEAN SCORE BY ROUTE – POST-STAGE



Base pre-stage 25, post-stage 25

Summary of mystery shopping baseline results

8.107 Some of the key indicators from the mystery shopping survey are provided in the table below. This shows the change in the key measures between the pre- and post-stage. The table also shows some of the key measures from the post-stage and highlights the positive change since implementation.

FIGURE 8.31 MYSTERY SHOPPING KEY INDICATORS – COMPARISON OF PRE- & POST-STAGES

	Pre-stage	Post-stage	Difference
Overall satisfaction (out of 10)	4.8	7.2	+ 2.3
Quality of the signs (out of 5)	3.2	3.6	+ 0.5
Quality of any maps (out of 5)	3.0	4.1	+ 1.1
Definitely felt lost at some point (% of walks)	30	15	- 15
Failed to find information when needed (occasions)	41	23	- 18
Had to turn around (occasions)	12	7	- 5
Time taken	00:54	00:51	- 00:03

Accompanied journeys

8.108 Legible London was the most used source of information during the accompanied walks.

8.109 Generally, the view of the Legible London monoliths was very positive. Amongst those who knew the area they were walking in, they felt that in an area that they knew less well, it would be a very useful tool, but that it was aimed at tourists/ visitors.

"The quality and quantity of information was excellent and I'm now totally dependent on finding another one of those signs...!" (Ellesmere Road – Richmond Station)

8.110 That said, for this group, Legible London provided reassurance during their journey where needed, particularly in terms of journey time.

"These could encourage me to walk further in an area I didn't know, rather than take public transport. If I knew it would only take 15 minutes to walk, I'd do that rather than take the bus or tube. It often happens that you end up taking a cab or something and then realise it's just down the road" (Richmond Green – Richmond Gate)

"It's great that it shows the areas outside so you can link the areas together in your mind" (Whitton Road – Marble Hill House)

8.111 One respondent expected to arrive at his destination sooner, and would have liked some reassurance of journey time, which was not available due to a gap in signage on his route.

8.112 A number of other locations were mentioned as being gaps in signage:

- Junction of Red Lion Street & George Street;
- Generally journeys started in residential areas (e.g. Whitton Road, Beaconsfield Road, Ellesmere Road);
- Richmond Hill/ Richmond Gate (in addition, Richmond Park/ Richmond Gate was highlighted as not being clearly marked on the map or in the index);
- Marble Hill House.

8.113 These latter two require information as destinations to confirm arrival, and for return journeys.

"If anything there are more than needed in the centre of Richmond and we could do with more outside the area." (Ellesmere Road - Richmond Station)

8.114 Once the first monolith is seen, then others are generally spotted. It was mentioned that although the scheme had not been seen before it would now be looked for.

8.115 The yellow header on the monolith is easy to spot, and regarded positively. The logo was generally unnoticed and considered unnecessary. One respondent mentioned that this might be misleading for cyclists who might want to use the maps.

8.116 There was no issue of clutter in relation to the monoliths. In some locations, the signs were perhaps too set back from the pedestrian flow (e.g. House of Fraser, Richmond).

8.117 As in the other areas, there was some lack of understanding of the link between the two scales of map (5 min and 15 min maps).

8.118 A number of specific improvements were mentioned by respondents:

- Mark other monoliths on maps – added reassurance and introduces Legible London as an area-wide concept;

- GPS information/ reference of monolith – to help to link with mobile/ other mapping;
- Key information on yellow band/ in larger font (e.g. arrow to station/ river) to allow for directions without stopping;
- Lighting of monoliths (possibly on-demand);
- Show both walk time radii on the larger scale map to aid in linking between two maps.

9 Conclusions

9.1 In this final chapter we provide some overall comment and conclusions regarding Legible London. Note that these are the views of the consultants (Steer Davies Gleave), and do not necessarily reflect those of TfL.

9.2 The comments are structured around the key aims identified for Legible London:

- Building confidence;
- Legibility and clutter;
- User perceptions;
- Reduced journey times;
- Mode shift.

Building confidence

9.3 The study has provided good evidence that Legible London is itself seen as reliable, and in turn, this does imbibe users with more confidence to use walk as a means of travel, and more confidence to explore London by foot[19]. To some extent, this is limited by the partial nature of the Legible London pilots and there can be expected to be an even greater impact on confidence once people can rely on Legible London being present wherever they travel in London.

Legibility and clutter

9.4 The legibility and clutter objective was designed to be measured specifically using the PERS method. The PERS audits confirm that the core objective has been achieved with an improvement in the score for legibility of +3.8 (from -1.6 to +2.2 on a scale of -3 to +3).

User perceptions

9.5 The various surveys undertaken have all shown positive user perceptions of Legible London, with high satisfaction scores and a very high level of support (87%) for rolling Legible London across the capital.

9.6 Within this context, it is worth considering who exactly the users of Legible London are. First and foremost, it is pedestrians that are aware of the scheme, which at the time of the survey amounts to around half the pedestrians in the pilot areas. This can be expected to build up gradually over time, though for tourists and irregular visitors this may take some time, if it is left to the natural course of events (that is, without specific awareness raising interventions).

9.7 While in broad terms, it is visitors and tourists that have the most to gain from Legible London, there is evidence that local people and workers regularly in the area also benefit. This is particularly the case when they are looking to go somewhere off their usual routes. For example, 64% of pedestrians who already walk in the area at least once a week still agreed that Legible London makes it easier to walk to different places[20].

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19 In the after survey, 77% agreed that the signs give them the confidence to explore the area by foot, up from 54% in the before survey: source Legible London on-street survey

20 source Legible London on-street survey

9.8 Nevertheless, it would be fair to say that the benefits of Legible London are felt most where there are higher volumes of pedestrians (or potential pedestrians) who are less familiar with the area.

9.9 In terms of the impact of Legible London on the TfL brand, the indications are that these are only indirect at the moment. While the scheme appears to be beneficial to the London 'brand' and TfL by association, a more direct link is not there at the moment because of the very low-key nature of TfL branding on the Legible London monoliths, the monoliths currently being by far the most visible aspect of the scheme.

Reduced journey times

9.10 While there is some evidence of reduced journey times, the research has perhaps highlighted that this is less important than the quality of the experience. In other words, Legible London has the ability to make walking more pleasant and attractive (and less stressful), which in turn means that a faster journey time is less important.

9.11 Survey respondents certainly believed that Legible London was helpful in pointing them to the shortest route[21], and following the implementation of Legible London there was a marked drop in the number of our mystery shoppers who definitely felt lost, and these benefits are arguably as important as any small reduction in journey time.

Mode shift

9.12 While there was a small increase in the volume of pedestrians in the pilot areas this cannot be attributed to Legible London, and while many survey respondents believed that Legible London would change their behaviour and encourage more walking, this is unlikely to have happened on a significant scale yet.

9.13 The reason for this is that generally speaking, people do not think about how they are going to make a trip, and rarely make mode choice decisions in the way it is often believed[22]. What Legible London can do though is put in people's minds the idea that walking is a viable alternative for some trips, and, when combined with a specific 'pull' (motivating) factor such as a desire to improve fitness or save money, this can then lead to behaviour change.

9.14 The research on decision-making has also shown that changes in behaviour are usually triggered by some kind of lifestyle event (typically changing jobs, moving house, change in family circumstances or personal health), and when such an event does occur, we can expect Legible London to have increased the prominence of walking as a potential mode. Hence, although we can expect a delay of some months (even years) for Legible London to have its full impact on behaviour, the evaluation research undertaken does provide hope that this behaviour change will indeed materialise.

Overall conclusion

9.15 In overall terms, the evaluation of Legible London shows a very positive picture. There are some 'tweaks' that seem appropriate (we would highlight two, filling in some of the

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21 67% said the information available was very/quite good for finding the shortest route. Source Legible London on-street after survey

22 The way mode choices are made has been explored in the work-stream on car ownership and use, see for example, "Influence of Cost on Car Use Desk Research Report", Steer Davies Gleave, 2010; or "Customer Insight concerning the Environment, Sustainability & Travel Choice", Steer Davies Gleave, 2009.

specific gaps identified for locations of monoliths, and a clearer link between the two maps shown), but our view is that it is well worth continuing with the roll-out of Legible London, focussing particularly on areas with higher volumes of visitors (including Londoners visiting the area, not just tourists).

9.16 To support this, we think it would be beneficial to consider how to create more awareness (and even, if possible, "buzz") around Legible London, particularly focussing on non-Londoners. Mass media advertising we do not think would be appropriate, but more targeted communications and PR would be valuable.

9.17 The ultimate aim would be to make Legible London a core characteristic of London, and something which helps to define its unique benefits, rather like the red bus, black cab, Tube, and (hopefully) the cycle hire scheme.

APPENDIX

A
SURVEY MAPS

A1 ROUTES TAKEN BY MYSTERY SHOPPERS

A2 ROUTES TAKEN ON ACCOMPANIED JOURNEYS

APPENDIX

B
QUESTIONNAIRES

B1 MYSTERY SHOPPER QUESTIONNAIRES

B2 MYSTERY SHOPPER DISCUSSION GUIDE

B3 ACCOMPANIED JOURNEY DISCUSSION GUIDE

APPENDIX

C
EVALUATION FRAMEWORK

C1 EVALUATION FRAMEWORK - DETAIL

Goal	Objectives	Mechanism by which objective achieved	Measures	Surveys – link to Evaluation [ex-ante & ex-post]	Issues
GOAL 1 - Achieve transport, social and environmental benefits of shift to walking	**1A -** Reduce public transport crowding and road congestion	Transfer to walk results in less car / PT use Remaining PT & car users gain an economic benefit from reduced crowding	**Direct** 1. Evidence of modal shift to walking 2. Transfer mode **Indirect** Change in crowding or congestion (e.g. Change in pax on LUL / Bus / interchange) Change in road usage	**Direct** From user interview surveys, changes in: - perceptions of the ease of wayfinding, - ratings of wayfinding signage for finding the shortest route and for exploring the area, - walking mode share From counts, volumes of walk trips, verified by indicators from other sources (e.g. bus station usage, LUL station usage, changes in traffic volumes, LTDS) From household surveys (Richmond &Twickenham only) additional qualitative support for observed changes, and greater insights into motivations for behaviour change **Indirect** The objective 'reduced congestion' is an outcome based on achieving mode shift – hence is not measured directly in the surveys	
	1B - Enable increasing transport demand to be met	Transfer to walk results in less car / PT use This creates additional network capacity which can support demand growth	**Direct:** 1. Evidence of modal shift to walking 2. Transfer mode **Indirect:** Change in crowding / capacity	As 1A	

Post-Stage Analysis

Goal	Objectives	Mechanism by which objective achieved	Measures	Surveys – link to Evaluation [ex-ante & ex-post]	Issues
	1C - Promote healthy lifestyle choices	Walking – more healthy mode. Benefits to individual and society	**Direct** 1. Evidence of modal shift to walking	As 1A. Data from interview surveys	
	1D - Reduce noise pollution and vehicle emissions	Modal shift – fewer cars – reduced noise / emissions	**Direct** Modal shift **Indirect** Ambient noise levels Concentrations of NO_x and PM_{10}	Local authority routine air quality monitoring is available, but locations may not be relevant	Noise is not routinely monitored
	1E - Reduce the impact on climate change		**Direct** Modal shift **Indirect** Emissions of CO_2 from reduced car km	As 1A	
	2B - Increase tourism/retail footfall and visitor expenditure	As 2A	As 2A	As 2A	

Goal	Objectives	Mechanism by which objective achieved	Measures	Surveys – link to Evaluation [ex-ante & ex-post]	Issues
GOAL 3 - Improve the local environment and urban realm	**3A -** Improve quality of walking journey	Quality of signage, absence clutter etc	**Direct** Improvement in PERS scores Improvement in user perceptions from user interview surveys **Indirect** Captured through modal shift (more confidence = increased usage)	**Direct** PERS provides 'score' for quality pedestrian environment On-street interviews aimed at understanding whether respondents perceive the improvement (look for statistically significant improvements in ratings of the area in terms of easy and pleasant to walk around) Will also ask about what elements underpin improvement in terms of a) which components of LL – maps, signs, clutter removal etc b) the perceived benefits – confidence, safety etc Accompanied journeys/mystery shops provide further qualitative insight **Indirect** Pedestrian usage (mode shift of respondents – user interviews), and pedestrian counts	
	3B - Make journeys enjoyable, safer and more secure	Legibility = Confidence = enjoyment	**Direct** Improvement in user perceptions from user interview surveys **Indirect** Captured through modal shift (more confidence = increased usage)	**Direct** User perceptions and satisfaction ratings from on-street interviews, and also mystery shopper surveys Accompanied journeys provide further qualitative insight **Indirect** Pedestrian usage (mode shift of on-street survey respondents), and pedestrian counts	Survey will not ask about safety and security, as not an element of Pilot scheme design

Post-Stage Analysis

Goal	Objectives	Mechanism by which objective achieved	Measures	Surveys – link to Evaluation [ex-ante & ex-post]	Issues
	3C - Increase the legibility of London including reducing on-street clutter	Reduced clutter = increased legibility [Target Ratio of 2:1 pieces of street furniture removed for every sign that is installed. This does not apply to R&T]	**Direct** Improvement in PERS scores Improvement in user perceptions from user interview surveys **Indirect** Captured through modal shift (more confidence = increased usage) Improvements in specific legibility factors (e.g. clutter)	**Direct** PERS audits User perceptions from user interviews Accompanied journeys/mystery shops provide further qualitative insight **Indirect** Pedestrian usage (mode shift of on-street survey respondents), and pedestrian counts	
GOAL 4 - Ensure stakeholder buy-in to support Legible London take up	**4A -** Single world-class wayfinding system for London	Integration of existing systems (TfL/Visit London/ commercial)	Not measurable from surveys Relevant to 'buy in' and implementation	Not measurable from surveys	Stakeholder focused – not part of this evaluation
	4B - Maintain high demand for Legible London system	Demand is a function of attractiveness	Improvement in user perceptions	**Direct** User interviews will identify change in perception and behaviour **Indirect** Through ongoing monitoring	
	4C - Enhanced perception of TfL products, branding, image/ profile		User perceptions of products and branding		Evaluation will only ask about LL related measures

Goal	**Objectives**	**Mechanism by which objective achieved**	**Measures**	**Surveys – link to Evaluation [ex-ante & ex-post]**	**Issues**
GOAL 5 - Improve customer information and transport integration between modes	**5A -** Improve confidence and perception of ease of walking	Legibility = perceptions of ease	User perceptions of ease of walking and wayfinding	On-street interview surveys of users Accompanied journeys/mystery shopper surveys show navigability of routes [As per Goal 3]	
	5B - Improve TfL internal efficiency through a single pedestrian map	Integration of existing systems (TfL/Visit London/ commercial)	Part of implementation	[As per Goal 4]	Internally focused – outwith evaluation
	5C - Improve ease of transport interchange	Better info – improved ease of interchange	Time taken to effect interchange (effectiveness of signage) Quality of interchange (ambience)	Captured through accompanied journeys/mystery shopper and, to an extent, through on-street interviews	
	5D - Journey time savings on key short routes	Better info enables more direct routing	Journey times for key routes	Captured through accompanied journeys/mystery shopper and, to an extent, through on-street interviews	

APPENDIX

D
COUNT DATA

D1 SOUTH BANK COUNT DATA - POST-STAGE

	Weekday							Weekend						
Time Period	Tate Modern	Southwark Street	Belvedere Road	Sutton Walk	Cornwall Rd	The Cut	Blackfriars Rd	Tate Modern	Southwark Street	Belvedere Road	Sutton Walk	Cornwall Rd	The Cut	Blackfriars Rd
07:00 - 08:00	467	213	289	1,009	428	347	809	104	39	41	129	78	75	64
08:00 - 09:00	687	1,075	881	2,716	1,059	806	2,614	184	72	115	215	127	102	79
09:00 - 10:00	448	1,270	837	1,801	922	516	1,220	419	167	230	700	170	235	165
10:00 - 11:00	981	410	675	1,114	445	306	317	1,159	260	465	1,394	243	339	251
11:00 - 12:00	1,514	306	530	1,122	279	257	296	2,104	260	755	3,043	253	366	243
12:00 - 13:00	2,067	1,157	765	1,722	660	723	801	3,002	305	1,027	3,860	298	549	305
13:00 - 14:00	2,551	1,741	1,196	2,217	801	851	868	3,842	344	2,114	2,519	313	659	433
14:00 - 15:00	2,530	986	853	2,104	466	503	762	4,116	400	1,371	2,197	296	799	526
15:00 - 16:00	2,181	564	639	2,108	480	434	660	3,247	365	1,597	2,357	265	516	582
16:00 - 17:00	1,859	626	783	2,653	549	600	880	3,412	408	1,512	3,025	211	526	678
17:00 - 18:00	2,457	1,262	1,437	4,565	1,075	1,084	2,110	3,390	381	2,273	3,675	249	754	642
18:00 - 19:00	2,174	1,111	1,816	8,921	856	1,246	1,759	2,726	334	2,490	3,770	289	795	616
All day	**19,916**	**10,721**	**10,701**	**32,052**	**8,020**	**7,673**	**13,096**	**27,705**	**3,335**	**13,990**	**26,884**	**2,792**	**5,715**	**4,584**

D2 CLEAR ZONE COUNT DATA – POST-STAGE

	Weekday							Weekend						
Time Period	British Museum	High Holborn	Long Acre	Monmouth Street	Kingsway	Bloomsbury Street	Endell Street	British Museum	High Holborn	Long Acre	Monmouth Street	Kingsway	Bloomsbury Street	Endell Street
07:00 - 08:00	162	715	577	227	884	217	152	33	148	63	44	103	66	53
08:00 - 09:00	364	2,308	1,628	698	2,512	646	472	109	266	189	67	223	78	67
09:00 - 10:00	689	2,169	1,674	709	2,246	620	552	473	386	467	183	294	226	166
10:00 - 11:00	1,150	1,596	1,622	566	1,256	492	408	990	777	969	315	535	475	307
11:00 - 12:00	1,137	1,716	2,101	563	1,186	510	455	1,189	1,065	1,931	506	689	587	394
12:00 - 13:00	1,265	2,963	3,809	770	2,298	780	703	1,354	1,369	2,609	586	828	806	557
13:00 - 14:00	1,268	3,545	4,957	1,018	2,989	929	1,011	1,451	1,350	3,222	745	1,341	808	564
14:00 - 15:00	1,348	2,527	3,842	870	1,832	672	760	1,296	1,462	3,325	834	1,201	662	549
15:00 - 16:00	1,401	2,255	3,547	847	1,728	666	767	1,479	1,384	2,981	916	1,215	672	502
16:00 - 17:00	1,311	2,504	3,478	905	1,843	691	696	1,084	1,311	2,595	791	1,140	562	522
17:00 - 18:00	1,379	3,174	5,144	1,363	2,700	958	885	1,072	1,415	2,518	641	1,335	473	498
18:00 - 19:00	974	2,845	5,396	1,204	2,498	870	1,046	373	1,155	1,947	579	1,042	331	426
All day	**12,448**	**28,317**	**37,775**	**9,740**	**23,972**	**8,051**	**7,907**	**10,903**	**12,088**	**22,816**	**6,207**	**9,946**	**5,746**	**4,605**

D3 RICHMOND & TWICKENHAM COUNT DATA - POST-STAGE

	Weekday				Weekend			
Time Period	Richmond Station	George Street/ Hill Street	Twickenham Station	York Street	Richmond Station	George Street/ Hill Street	Twickenham Station	York Street
07:00 - 08:00	2,154	151	500	253	418	46	96	61
08:00 - 09:00	4,056	350	1,114	556	784	124	227	226
09:00 - 10:00	2,543	546	632	841	1,330	378	312	529
10:00 - 11:00	1,834	448	432	907	1,906	760	495	905
11:00 - 12:00	2,132	625	387	1,004	2,641	1,298	590	1,240
12:00 - 13:00	2,474	1,062	454	1,462	3,227	1,788	477	959
13:00 - 14:00	1,825	1,152	511	1,564	2,720	1,804	466	1,121
14:00 - 15:00	1,807	908	502	1,213	2,807	2,222	419	1,011
15:00 - 16:00	1,770	875	599	1,110	2,244	1,884	357	705
16:00 - 17:00	2,129	842	647	970	1,992	1,792	318	693
17:00 - 18:00	3,448	828	865	938	2,662	1,586	407	684
18:00 - 19:00	3,010	875	841	847	3,292	1,502	471	610
All day	**29,182**	**8,662**	**7,484**	**11,665**	**26,023**	**15,184**	**4,635**	**8,744**

APPENDIX

E
ACCOMPANYING REPORTS

E1 ACCOMPANYING REPORTS

E1.1 Separate reports have been written for the on-street surveys and PERS audits:

- Legible London Pilot Evaluation – South Bank, Report of findings (On-street), Synovate, 2010
- Legible London Pilot Evaluation – Clear Zone, Report of findings (On-street), Synovate, 2010
- Legible London Pilot Evaluation – Richmond & Twickenham, Report of findings (On-street), Synovate, 2010
- PERS Legibility Audit 'After study' South Bank pilot, TRL, 2010
- PERS Legibility Audit 'After study' Clear Zone pilot, TRL, 2010
- PERS Legibility Audit 'After study' Richmond & Twickenham pilot, TRL, 2010

CONTROL SHEET

Project/Proposal Name	Legible London: Pilot Evaluation
Document Title	Post-Stage Analysis
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ISSUE HISTORY

Issue No.	Date	Details
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3	03/09/2010	Revised draft report – to include local objectives
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REVIEW

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