Exploring the Bus CSS metrics

January 2014

1. Key findings

Key findings

- Reliability has the greatest impact on overall satisfaction
    - Comfort, Ease of journey, Human, and Stress (or lack of) are also key drivers of satisfaction

- Customers feel as if bus travel is generally improving, largely due to availability and use of live information bus apps
    - Giving customers more control and reassurance when they travel

- Improving bus driver engagement with customers may help to improve satisfaction scores in the future. Customers want the following from bus drivers:
    - Acknowledge / make eye contact (maybe smile) when they get on the bus (basic expectation)
    - Be helpful when they have a question
    - Personally announce and explain disruptions/delays
    - Drive smoothly and comfortably

- Current CSS Questionnaire works well and this research shows that we are measuring the right things, but there is some scope for improvements

2. Factors that frame satisfaction

Personal factors that influence satisfaction

London Bus heritage

Love the Routemasters - iconic part of London's culture x

Reply Retweet Favourite

- Customers have pride in the London Bus
- Many customers hold a positive emotional connection to the bus
- As a result, customers can be more forgiving when things go wrong

Choice & preference

- Look out of the window, feeling connected with the outside world
- Easier 'hop' on and off
- Closer to home / work, easier to get a seat, cheaper, etc.
- Can affect satisfaction if other factors get in the way of this eg crowding, noise, smells, other customers, etc.

Travel is a nightmare in London. I find buses far the easiest #londonbus

Habits

- People's habits can affect satisfaction – favourite seat / upstairs / downstairs
- Any impact on habits can lead to dissatisfaction, or increased satisfaction

"If someone sits in my favourite seat I feel really irritable"

External factors that influence satisfaction

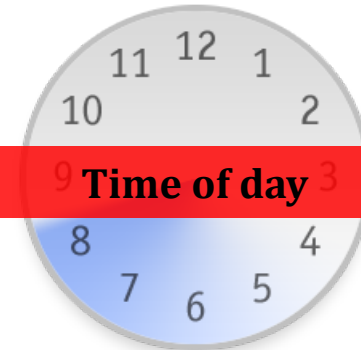**Weather**

Rain/wind causes delays

"The weather is out of TfL's hands – in a way that's worse because there is nothing anyone can do about it!"

Journey type

Familiar vs unfamiliar

Time of day

Peak/rush hour vs non-peak

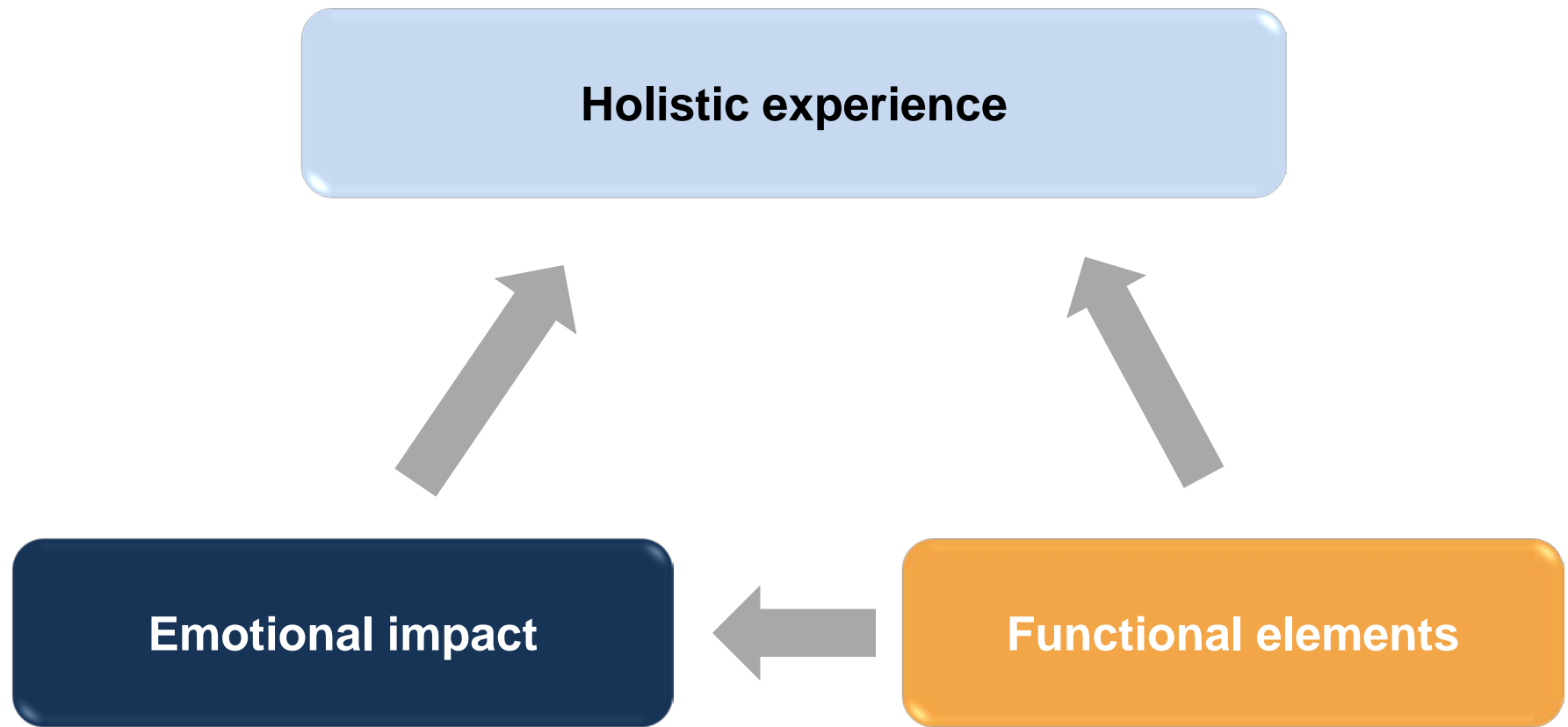**Other passengers**

Smells/noise/anti-social behaviour

Traffic

Road works/ congestion/accidents

"TfL can't control what kind of people get on, so you just have to get over it if someone is being anti-social"

Whilst there is frustration 'in-the-moment', customers understand that these factors are outside of TfL's control

3. The five drivers of satisfaction

The holistic experience determines customer satisfaction

```
            ┌─────────────────────────────────┐
            │      Holistic experience        │
            └─────────────────────────────────┘
                 ↗                      ↖
  ┌──────────────────────┐    ┌──────────────────────┐
  │  Emotional impact    │ ←  │  Functional elements │
  └──────────────────────┘    └──────────────────────┘
```

Holistic experience

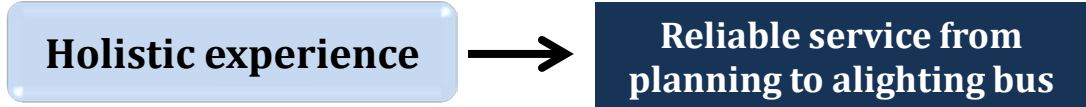**Emotional impact**

Functional elements

Emotions, as well as functional elements, play a key role in driving journey experience

Five core principles that make up the holistic experience

1. Reliability

Holistic experience → **Reliable service from planning to alighting bus**
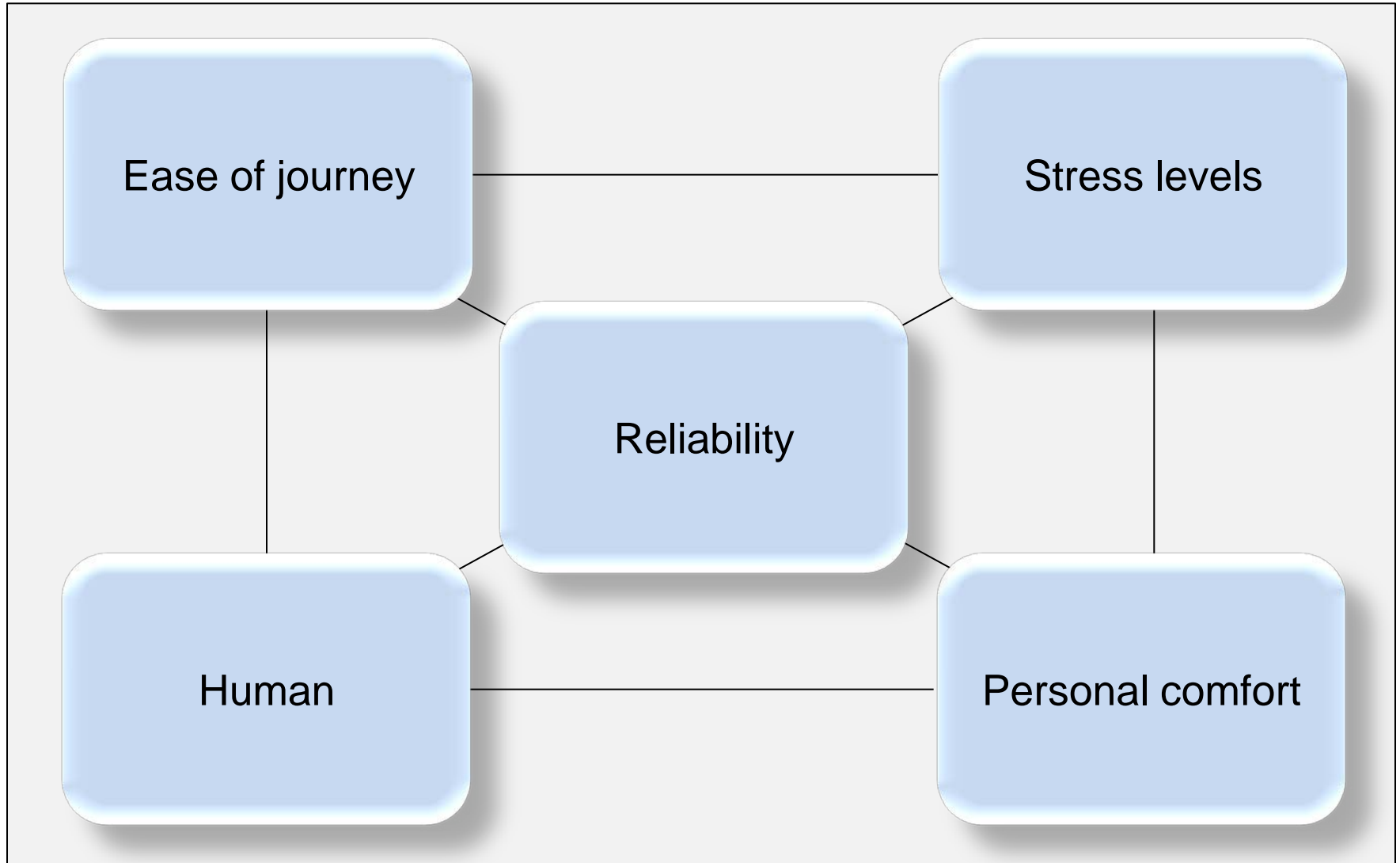
RELIABILITY

Customer feeling **confident** that the bus will get them to their **destination on time**

"The Countdown should be at every stop – they're great!"

Accurate / reliable information (website, apps, Countdown, timetables)

Knowing when the next bus will come

"I feel like I'm waiting forever when I can't see how long the next bus will be"

Feeling in control of their journeys

Clear **instructions / information** if buses are diverted or disrupted

Reassured when times / routes change

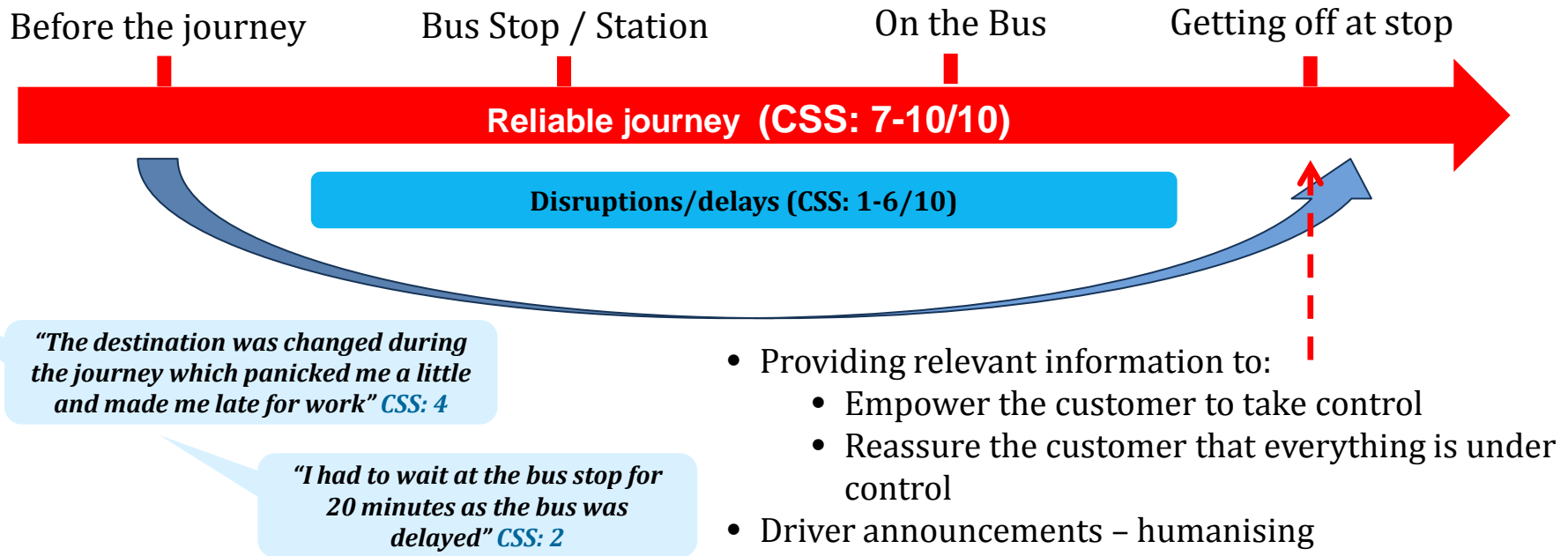*"It's so stressful when the bus is diverted and no-one tells you what's going on"*

I wonder if tomorrow any of the London buses I get actually complete their journey. Three different buses today all terminated early. @TFL

Reliability is central to bus travel satisfaction

- Getting from **A to B** is central to the bus experience and most important to customers
- An unreliable service (eg **disruptions/delays**, bus **not turning up on time / not stopping**, **inaccurate/no information** provided when change to service) has a **bigger impact** on satisfaction scores than any other driver

"The bus was on time for once – it took me by surprise!" CSS: 9

Before the journey	Bus Stop / Station	On the Bus	Getting off at stop

Reliable journey (CSS: 7-10/10)

Disruptions/delays (CSS: 1-6/10)

"The destination was changed during the journey which panicked me a little and made me late for work" CSS: 4

"I had to wait at the bus stop for 20 minutes as the bus was delayed" CSS: 2

- Providing relevant information to:
  - Empower the customer to take control
  - Reassure the customer that everything is under control
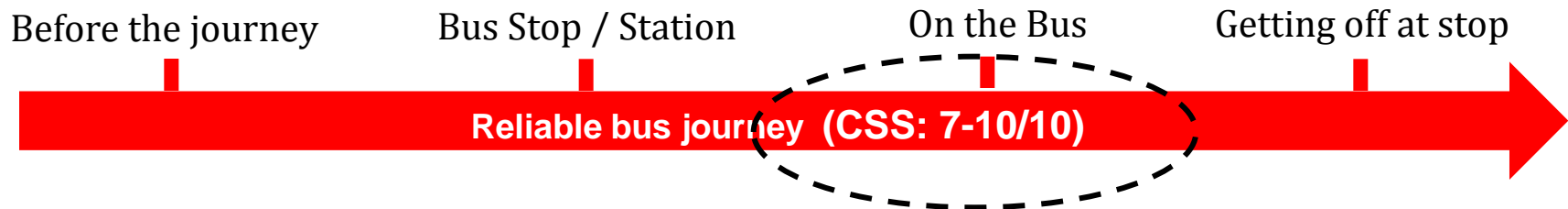- Driver announcements – humanising

Satisfaction scores will always be lower if the Reliability driver is not met (regardless of how the bus journey performs against other satisfaction drivers)

Customers can give a bus satisfaction score of 10/10 just for getting them to their destination on time

- Customers feel that bus travel is more susceptible to disruptions due to it being on the roads (at the mercy of traffic, weather, etc.), and are therefore more satisfied when they get to their destination on time

- Being able to see the problem eg traffic can make customers more forgiving

- Reliability has a more positive impact on bus travel satisfaction compared to the Tube and other rail modes (DLR, Tram, Overground)
  - Reliable journey by Tube → CSS: 7-8/10
  - Reliable journey by DLR/Tram/Overground → CSS: 7-9/10

"The bus was packed as usual but right on time which was good!" **CSS: 10**

Before the journey   Bus Stop / Station   On the Bus   Getting off at stop

Reliable bus journey (CSS: 7-10/10)

Although satisfaction scores do increase when other drivers are also delivered to (eg Ease of Journey, Personal Comfort , etc)

2. Personal comfort

Holistic experience	→	Personal Comfort

Feeling **safe** and **at ease (eg shelter** and **lighting** at bus stops/stations, existence of **CCTV, etc)**

Cleanliness and freedom from litter

Being able to spend **quality time** eg reading/listening to music

Personal space (not cramped/claustrophobic), **Crowding** (including **prams** and **wheelchairs**) and getting a seat

Smoothness, quality of driving

Temperature and **noise**

**Bus type** (NBfL and double decker vs single decker)

"The very back seat is free near the window which is my favourite - in this cold, I find the backseat warm and comforting"

"I like to sit at the front of the bus (up top), I also feel comfortable knowing there is CCTV all around"

Not sure if this **bus** is being driven or stolen. Just set a new land speed record for Mile End to **London** Fields #277
📍 from Hackney, London

Reading @AfterallJournal one work on Alighiero Boetti's Mappa as I glide into West **London** on a blissfully **quiet bus** - #finallyhome

3. Ease of Journey

Holistic experience → **Ease of journey**
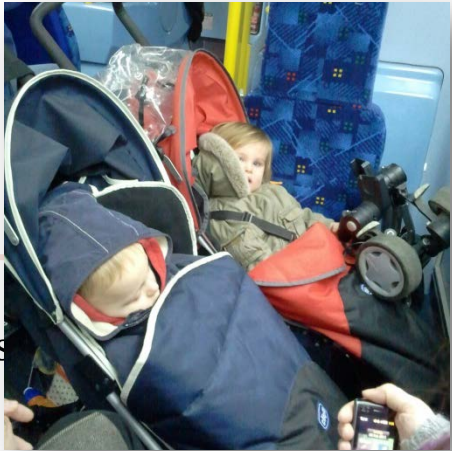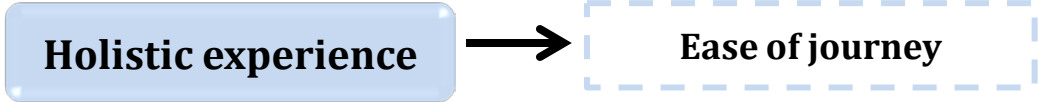
Information

> **Planning information/tools** (Journey planner, mobile webs
> Live information (**Countdown** and **apps**)
> Navigation (**stops/stations**)
> Information about **diversions / disruptions**

Ease of buying a ticket

iBus **announcements & visual** display

> @TfLBusAlerts 507 bus stop stround ground toward waterloo say bus stop not working doesnt say what is the problem terrible info tfl

> Just terrified a **bus** driver by trying to **pay** with cash #London

> *"The Countdown gives you control, so if it's going to be 30 mins I will walk instead"*

> *"If I can see on the Countdown that the bus will only be 10 minutes then that's fine, but if I can't see when it's coming, 10 minutes feels a lot longer"*

> *"The journey was smooth and easy, I got to relax and read my kindle"*

4. Human

Holistic experience → **Human**
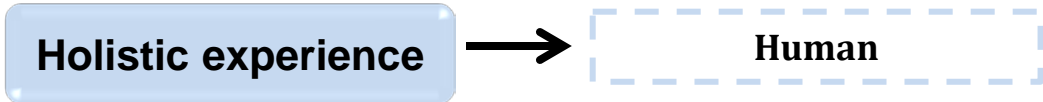
Role of the driver

NBfL with **conductors**

Bus **design** eg NBfL

Bus **cleanliness**

> *"It's so nice when you have a friendly driver who smiles at you and says hello – you know, actually acknowledges you!"*

> LOL my bus driver is singing "We Wish You a Merry Christmas" #tfl I wish all bus drivers were like him!

> *"Hearing the driver speak during the journey is much friendlier than the robot telling you what the next stop is"*

> I'm such a #geek sometimes. First time on a new **London bus** and I'm so giddy with excitement!!

The driver is more visible on the bus than for other modes and therefore plays a more central role in delivering a 'Human' service; when this is lacking, it impacts satisfaction

Customer expectations of the driver

- Customers feel that London Bus drivers should:
  - **Acknowledge** / make eye contact (maybe smile) when they get on the bus (basic expectation)
  - **Be helpful** when they have a question
  - **Personally announce** and explain disruptions/delays
  - **Reassure** customers when things go wrong
  - Drive **smoothly** and **comfortably** (eg no sharp brakes or speedy 'get-a-ways')
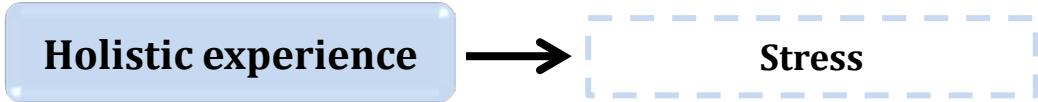
- Customers **express dissatisfaction** with bus drivers
  - General engagement/politeness and assistance when they have a question or when things go wrong

"We want to be treated like customers, not annoyances"

"Some drivers hide behind their glass window and don't look like they want to be spoken to and that's a shame"

5. Stress

Holistic experience	⟶	Stress

Crowding (including boarding and alighting),

Bus **not stopping** (eg when the bus is full)

Delays/disruptions (especially when there is a lack of information)

Customers need to feel **Safe**

Ease of buying a ticket

Other passengers (**anti-social behaviour**)

"It can be really stressful at the bus stop with prams, children, tourists - I'm just so relieved when the bus turns up"

London buses are hell! Every single one for 40min has drive right by because it's jam packed

Dear **London** Transport, it helps when you send drivers out with **control** of a **bus**, that they know the route. #JustSaying #ThatAwkwardMoment

The extreme rudeness & pushiness of people at London bus stops is astounding this morning :/ *notes more names on custard-pie-in-face list*

Location also has an impact on bus travel experience

- Bus travel experiences **lack consistency** across London

- Bus travel is generally felt to be better in **inner** London due to:
  - More buses
  - More live **information** at the stop (Countdown)
  - More **modal options**
  - More **NBfL and double decker** routes
  - **Sheltered** and **seated** bus stops/stations

- Bus travel in **outer** London, while quieter, tends to be considered not so good
  - Fewer buses
  - Bus stops with no live information and fewer shelters/seats
  - Perceived '**worse**' bus types eg **single decker**
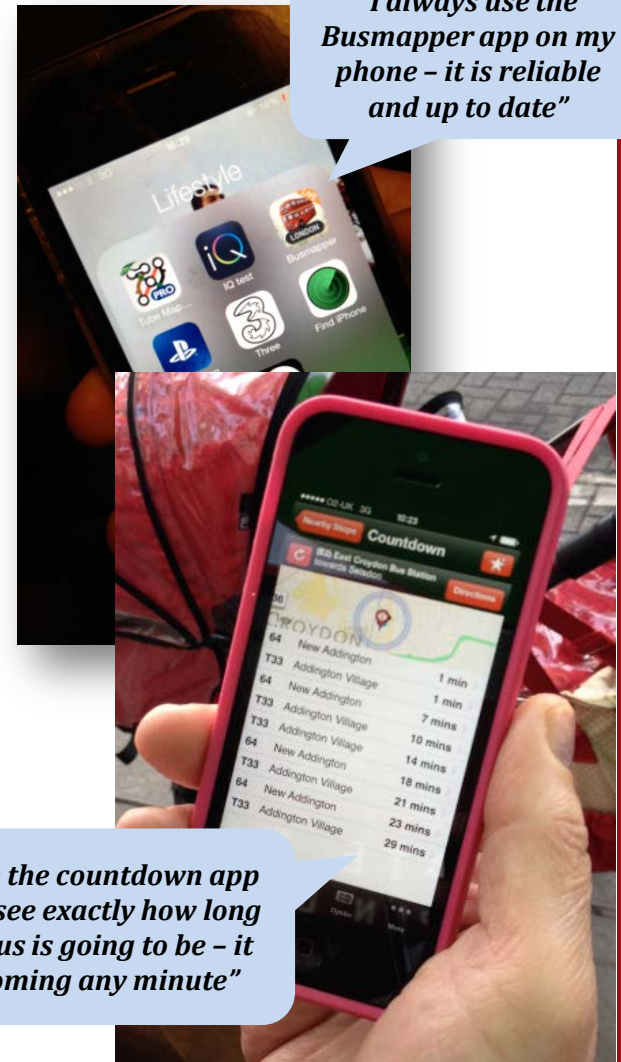 - Less choice as there are **fewer modal options**

Customers tend to have a better experience in inner London compared to outer London

5. Why has Bus Service CSS improved over past few years

Overall, customers feel that bus travel is improving and this is largely due to the introduction of bus apps

- Makes the service feel more reliable – affects perceived journey time

- Due to the availability of live information through apps, customers have become increasingly **self-reliant** when travelling by bus
  - Customers feel **in control** and get **satisfaction from self-serving**

- Apps are particularly useful at stops with no Countdown service
  - Customers feel **reassured,** and can **manage their time** (eg wait at home until bus is about to arrive)

↓   ↓   ↓

Delivering to satisfaction drivers: **Reliability**, **Ease of journey, Stress (lack of)** and **(emotional) Comfort**

"I always use the Busmapper app on my phone – it is reliable and up to date"

"With the countdown app I can see exactly how long my bus is going to be – it is coming any minute"

The NBfL also contributes to a sense that bus travel is improving

- The NBfL gives customers a sense of progress and innovation around bus travel, leading to feelings of **trust** and **reassurance** around the service
    - Even if they don't use the service, it's presence in London is impactful

- Customers look forward to using the NBfL as overall it is perceived to be **a more comfortable and reliable journey** than other (older) bus types
    - The conductor also contributes to the Human driver

⬇   ⬇   ⬇

Delivering to satisfaction drivers: **Reliability, Ease of journey, Stress (lack of), (physical) Comfort** and **Human**

Other Performance and Ops Metrics

Over the last three years both driver and vehicle scores have moved closer to the ideal standard Vehicles improved considerably (decreasing 58 points from Q3 10/11 to 13/14) and drivers to a lesser extent (decreasing 10 points)
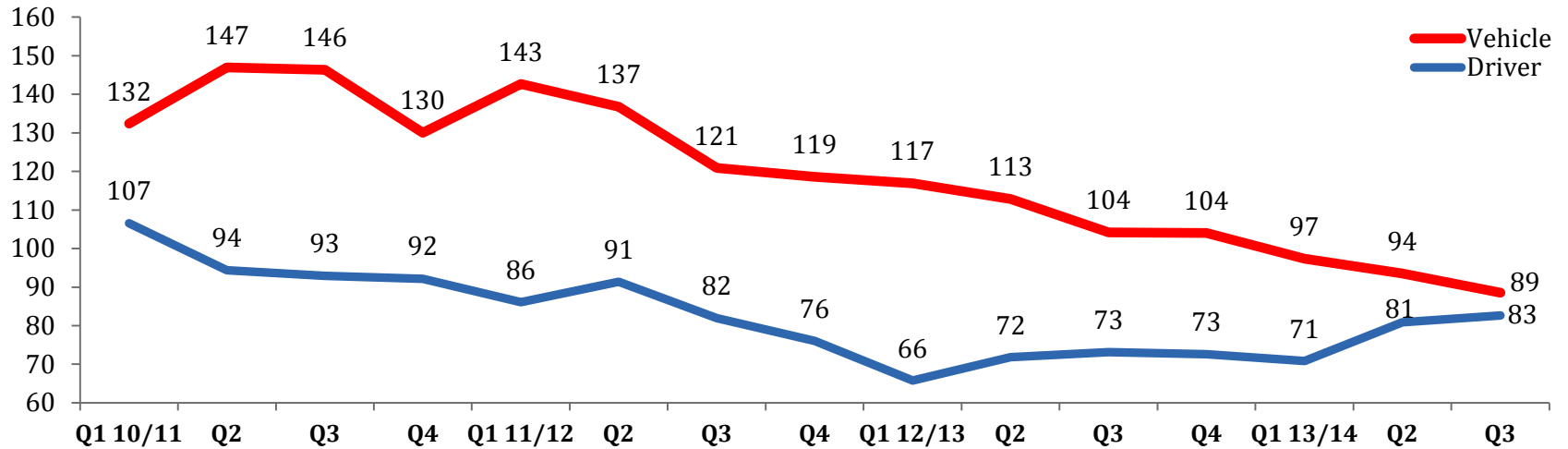
DQM and the Bus MTS Comfort and Safety scores show an improving trend.
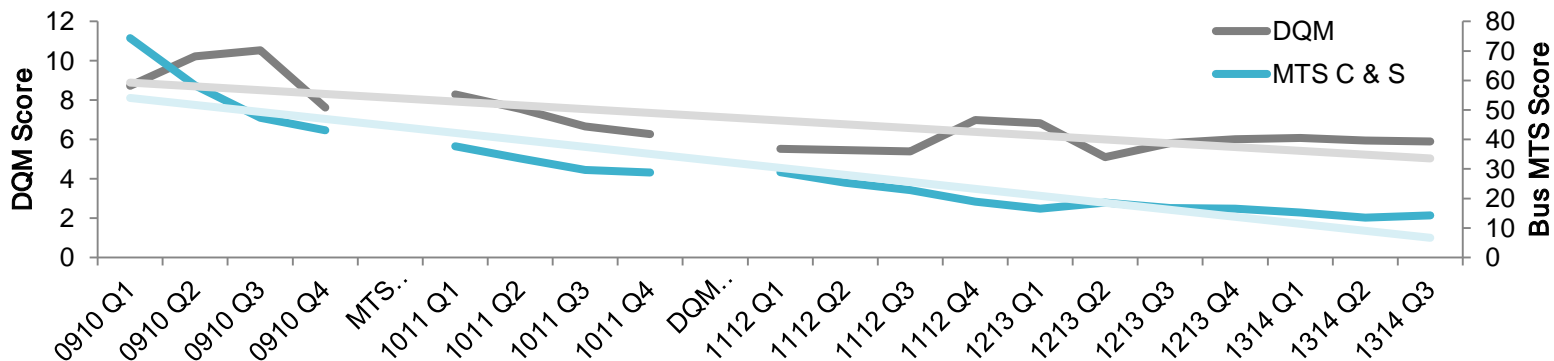
Other Performance and Ops Metrics

TLRN traffic speeds have remained fairly static over the past seven years

Bus Excess Wait Time has improved slightly in 10/11, but unchanged since then

Given how important the reliability of the whole journey is to customers, are there any operational metrics looking into this?

Improvements on Bus Services CSS over the past two years

CSS scores Q1&Q2 11/12 vs Q2&Q3 13/14

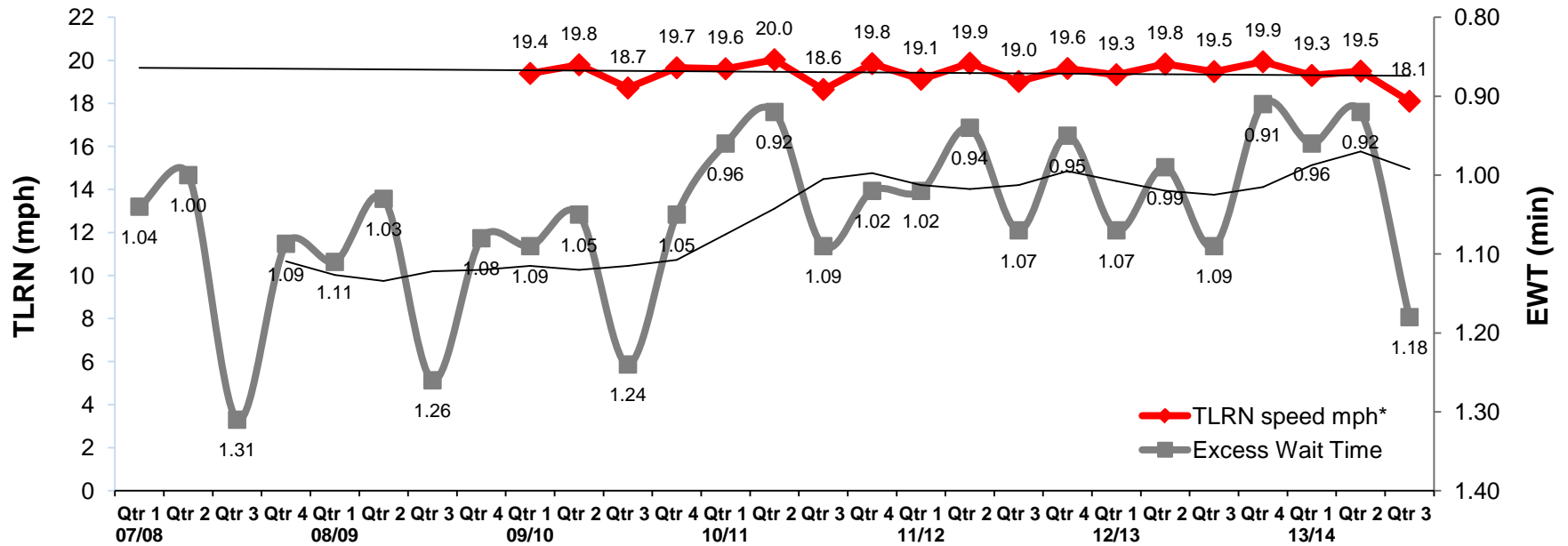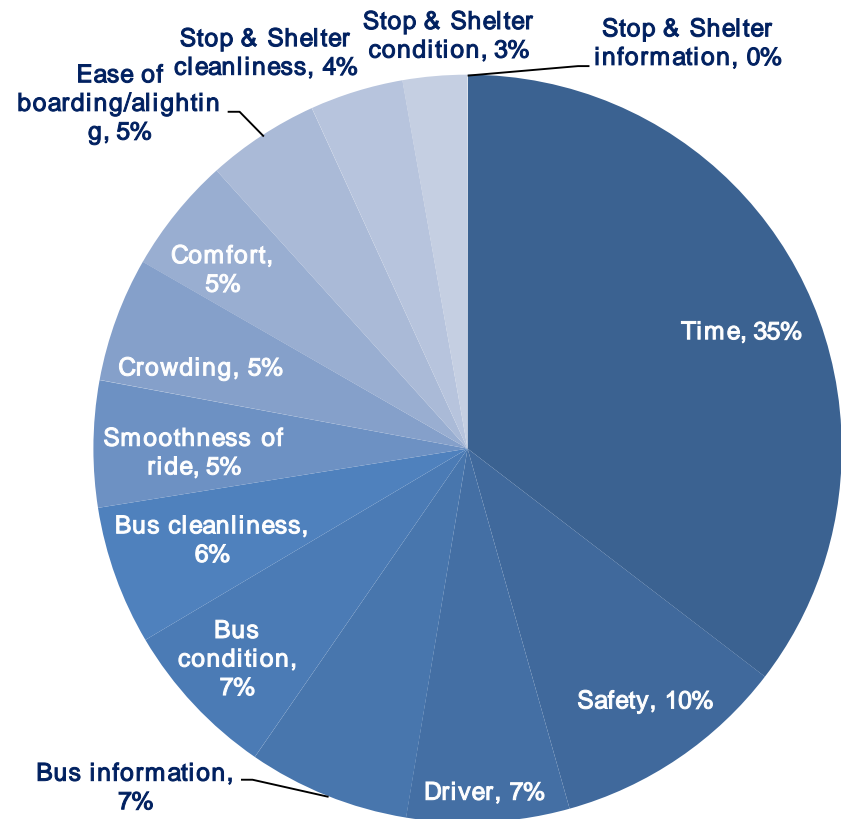|	Q1&Q2 11/12	Q2&Q3 13/14	Diff.	% Drive
Overall evaluation	**80**	**83**	**3**	
Journey time	82	85	3	20%
Time waited to catch bus	78	81	3	16%
Driver	84	87	3	7%
Smoothness of ride	79	82	3	5%
Level of crowding on bus	79	81	2	5%
On-bus safety & security	85	88	3	5%
Comfort on bus	80	81	2	5%
Ease of boarding/alighting	84	87	3	5%
Safety stop/shelter	82	84	2	5%
Bus exterior cleanliness	82	85	4	4%
Bus exterior information	83	86	3	4%
Bus interior condition	81	84	3	4%
Bus interior information	80	82	3	3%
Bus exterior condition	83	86	3	3%
Stop & Shelter condition	81	84	3	3%
Stop & shelter clean/graff	81	83	3	2%
Stop & shelter litter	78	80	2	2%
Bus interior cleanliness	79	80	2	2%
Stop & shelter information	80	80	0	0%

What's driving Overall Evaluation (CSS)?

Pie chart segments:
- Time, 35%
- Safety, 10%
- Driver, 7%
- Bus information, 7%
- Bus condition, 7%
- Bus cleanliness, 6%
- Smoothness of ride, 5%
- Crowding, 5%
- Comfort, 5%
- Ease of boarding/alighting, 5%
- Stop & Shelter cleanliness, 4%
- Stop & Shelter condition, 3%
- Stop & Shelter information, 0%

Improvements weighted by contribution to Overall Evaluation

6. What's Next

BUSES

Key ingredients of satisfaction

- Customers experience an easy and reliable journey (as a whole)

- Live information empowers customers to feel in control, reassured and keep stress levels low

- Drivers / conductors
    - Acknowledge / make eye contact
    - Are helpful when customers have a question
    - Personally announce and explain disruptions/delays
    - Drive smoothly and comfortably

- Customers have a comfortable journey

Potential improvements to the Bus Service CSS questionnaire

Current CSS questionnaire works well and this research shows that we are measuring the right things, but there is some scope for improvements:

- Reliability of whole journey (including impact of diversions / disruptions during journey)

- Improve questions about live bus info apps, mobile website and Journey Planner (if used to plan a journey) to ascertain impact on overall customer satisfaction

- Ease of buying a ticket

- Comfort at the bus stop/station (eg seating, lighting, shelter, etc.)
- Information about disruptions and delays at the bus stop / station

- Driver approachability / helpfulness
- Driver and iBus announcements on bus (especially during disruptions)
- Temperature inside the bus
- Availability of seats

NB: None of the above proposed changes will affect the continuity of CSS data

Appendix

Introduction and objectives

- Previous research to develop the LU customer satisfaction survey (CSS) identified the importance of capturing the emotional impact of the service, as well as the functional attributes, to deliver a deeper understanding of the holistic experience. Insight into the experiential drivers behind satisfaction scores creates opportunities to influence satisfaction in the future

- In light of this research, TfL are keen to enhance their understanding of customer satisfaction across other modes to deliver more sensitive and actionable insight from the CSS across the transport system

- TfL wants to develop a set of CSS metrics that capture the holistic customer experience of the bus, and will use this qualitative research to feed into the bus CSS development process
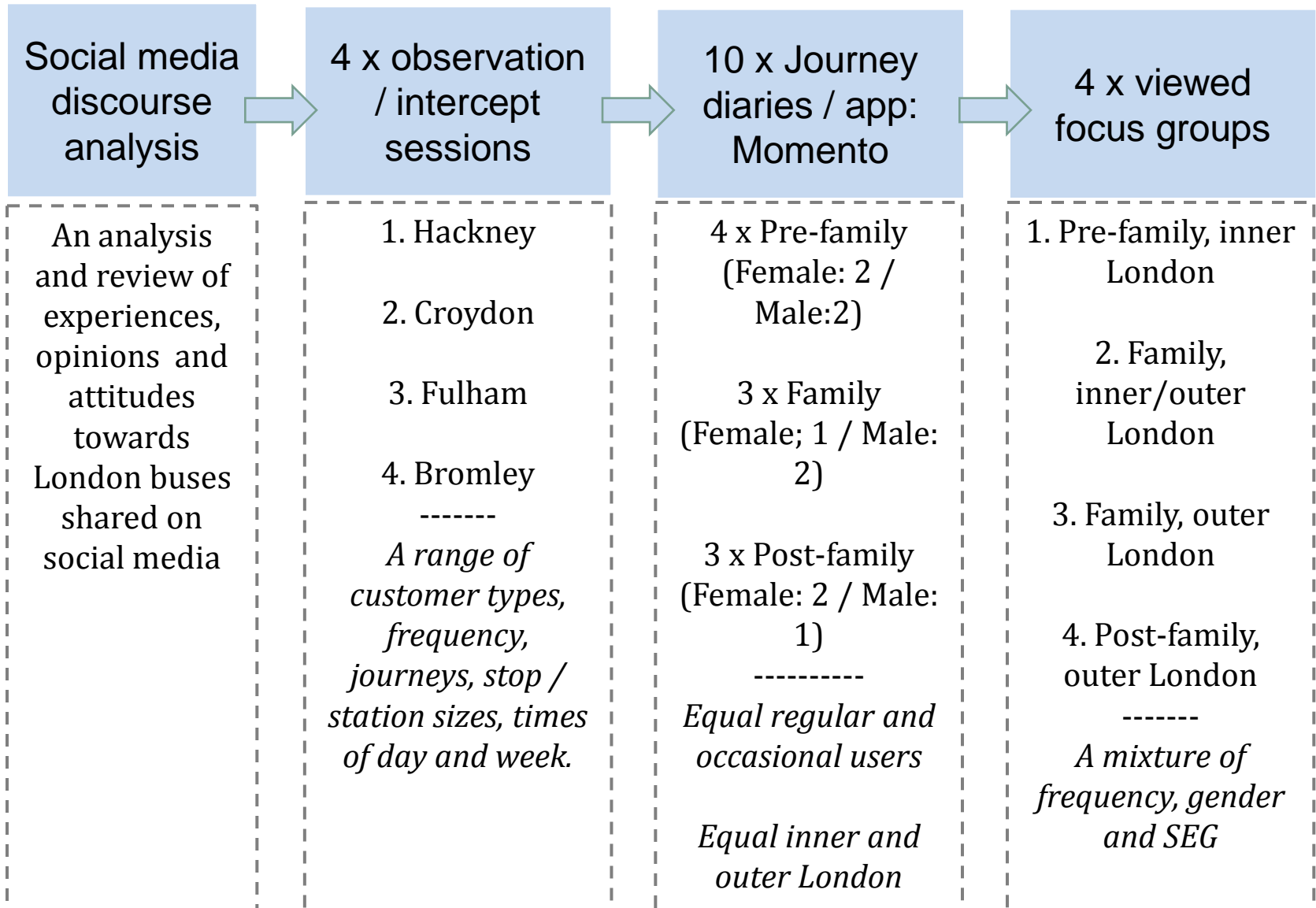
Research objectives:

1. Identify all the different journey aspects that influence customer experience of travelling by bus (what elements underlie CSS scores currently)

2. Compare the bus experience to the metrics for LU CSS to understand any similarities/differences in influences of customer experience

- *Validate LU metrics for relevance to bus travel*

Overview of method and sample*

Social media discourse analysis	4 x observation / intercept sessions	10 x Journey diaries / app: Momento	4 x viewed focus groups
An analysis and review of experiences, opinions and attitudes towards London buses shared on social media	1. Hackney 2. Croydon 3. Fulham 4. Bromley ------- *A range of customer types, frequency, journeys, stop / station sizes, times of day and week.*	4 x Pre-family (Female: 2 / Male:2) 3 x Family (Female; 1 / Male: 2) 3 x Post-family (Female: 2 / Male: 1) ---------- *Equal regular and occasional users* *Equal inner and outer London*	1. Pre-family, inner London 2. Family, inner/outer London 3. Family, outer London 4. Post-family, outer London ------- *A mixture of frequency, gender and SEG*

Observation/intercept sessions sample

Intercept session	Location	Additional Criteria
1	Inner (Hackney)	A range of customer types, frequency, journeys
2	Inner/outer (Fulham)	Range of stop sizes
3	Outer (Bromley)	Different times of day and week
4	Outer (Croydon)	

Sample – Journey diaries (Momento)

Respondent	Lifestage	Frequency	Gender	SEG	Location
1	Pre-family	Regular	Female		Outer
2	Family	Regular	Male		Outer
3	Post-family	Regular	Female		Inner
4	Pre-family	Regular	Male		Inner
5	Family	Regular	Female		Outer
6	Post-family	Occasional	Male	ABC1C2D	Outer
7	Pre-family	Occasional	Female		Inner
8	Family	Occasional	Male		Outer
9	Post-family	Occasional	Female		Inner
10	Pre-family	Occasional	Male		Outer

Sample – Focus groups

Group	Lifestage	Location	Frequency	Gender/SEG
1	Pre-family	Inner	Mix	Mix
2	Family	Inner/Outer	Mix	Mix
3	Family	Outer	Mix	Mix
4	Post-family	Outer	Mix	Mix