

Researching the passenger experience of bus travel

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My main research interests:

- Passenger journey experience
- Travel-time use
- Importance of mobile technologies and ICTs
- The 'place' of the bus



Key questions

“What’s actually **going on** on the bus?”

“How might this knowledge be used to improve passengers’ experiences, market the bus, and help bring about important policy outcomes (i.e. help make the bus ***more attractive***)?”

Improving the journey experience

“Given the difficulties inherent in making public transport services as time efficient as car use (...) tackling the affective [emotional] impact of a potentially more time consuming journey may be important to campaigns designed to reduce the number of commuters who drive to work.

Time efficiency is crucial to public transport use, but providing a more pleasant travel environment may reduce the need for public transport to be more time efficient than driving”

(Mann & Abraham, 2006, p. 171)



Travel-time use research overview

There has been little specific attention to the bus, most studies focus on the train.

Several pieces of research have shown that engaging in activities can increase the positive utility of travel-time on public transport – with particular reference to economically productive activities such as working during rail travel

(for example see: Mokhtarian & Salomon, 2001; Mokhtarian *et al.*, 2001; Lyons & Urry, 2005; Lyons *et al.*, 2007, 2011)

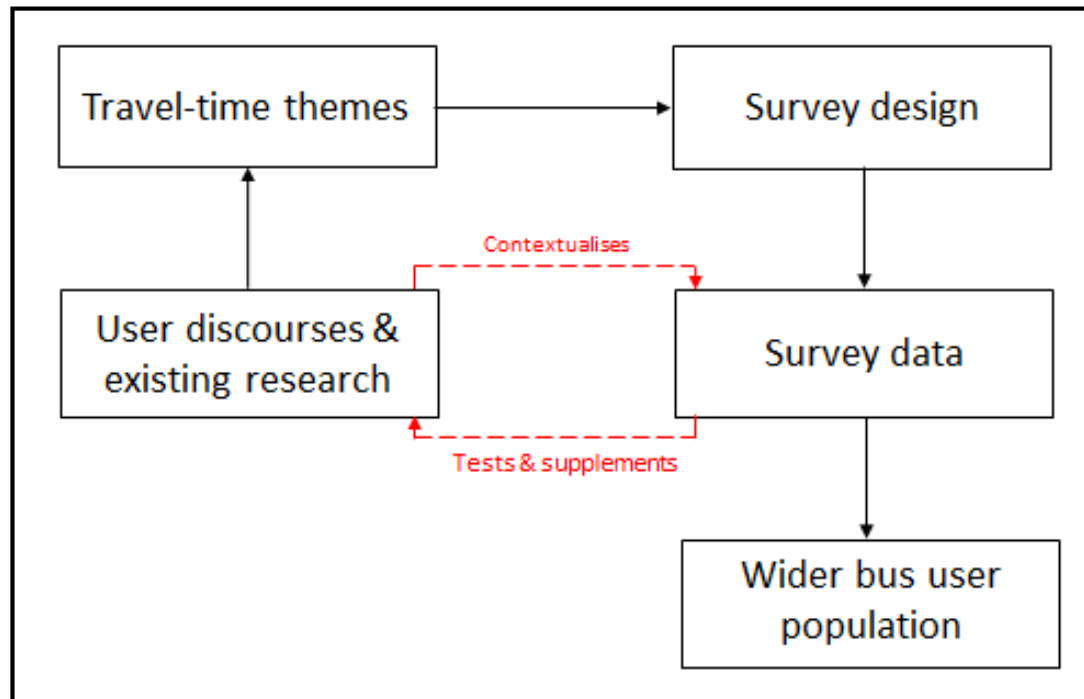
– *However* –

Recent research by Ettema *et al.* (2012) has challenged the link between activity and positive utility. Furthermore it emphasises that the fact that journey time is productive/useful does not necessarily mean that it is also enjoyable, attractive, pleasant, or 'fun'



Methodology overview

- Phases 1 and 2: Online and face-to-face qualitative focus groups (41 participants)
 - Key travel-time themes and language
- **Phase 3: On-board self-completion questionnaire survey (840 participants)**
 - All passengers aged 16+ travelling on surveyed services asked to participate
 - 5 urban bus routes in Bristol



Sample characteristics

Gender

- 44.3% male
- 55.7% female

Age

- 57.2% 16-24
- 14.4% 25-34
- 5.2% 35-44
- 6.3% 45-54
- 7.5% 55-64
- 9.3% >65

Journey purpose

- 33.6% Education
- 25.9% Work
- 12.6% Shopping
- 7.3% Leisure
- 6.5% Business
- 6.4% Visit friends/family
- 5.1% Personal business
- 1.9% Other

Car availability

- 20.4% Yes
- 79.6% No

Travel-time activity: Bus vs. Train

Activity	Bus Passengers (%)	Train Passengers (%) ₍₂₎
Reading for leisure ₍₁₎	48.9	54
Window-gazing/people watching	62.0	53
Texting/phone-call - personal	42.0	30
Working/studying	8.3	27
Listening to music/radio/podcast	38.7	20
Checking emails	9.8	17
Eating/drinking	11.3	17
Texting/phone-calls – work	11.1	15
Talking to others	23.5	14
Internet browsing	21.3	10
Sleeping/snoozing	8.5	14

1. Figure represents the combined sum for the “reading for leisure” and “reading the Metro” categories on buses

2. Data sourced from Lyons *et al.* (2011) – NRPS Autumn 2010 data

Carried objects

Item	Proportion that used (%)	Proportion that had to hand (%)
Mobile phone	52.7	74.5
Metro newspaper	35.2	45.8
Personal music player/radio	33.3	42.5
Food/drink	9.9	20.7
Reading book	7.7	15.2
Paperwork	1.5	12.3
Textbook	3.7	12.1
Electronic game	1.9	4.8
Other newspaper	1.8	4.4
Laptop	0.5	4.4
Magazine	1.4	4.0
PDA	1.0	1.7

Key findings (1)

There are **similar levels of travel-time activity** occurring on the bus as on the train, however some activity types are more popular on one mode than the other

ICT use on buses is high and rising, mirroring national trends more generally
(Ofcom, 2010)

Travel-time activities on the bus largely **create positive experiences** in three ways: through “**time-out**” (relaxation and/or personal time), through **distraction/displacement** (i.e. killing time or “shutting out” the bus), and through **socialising**

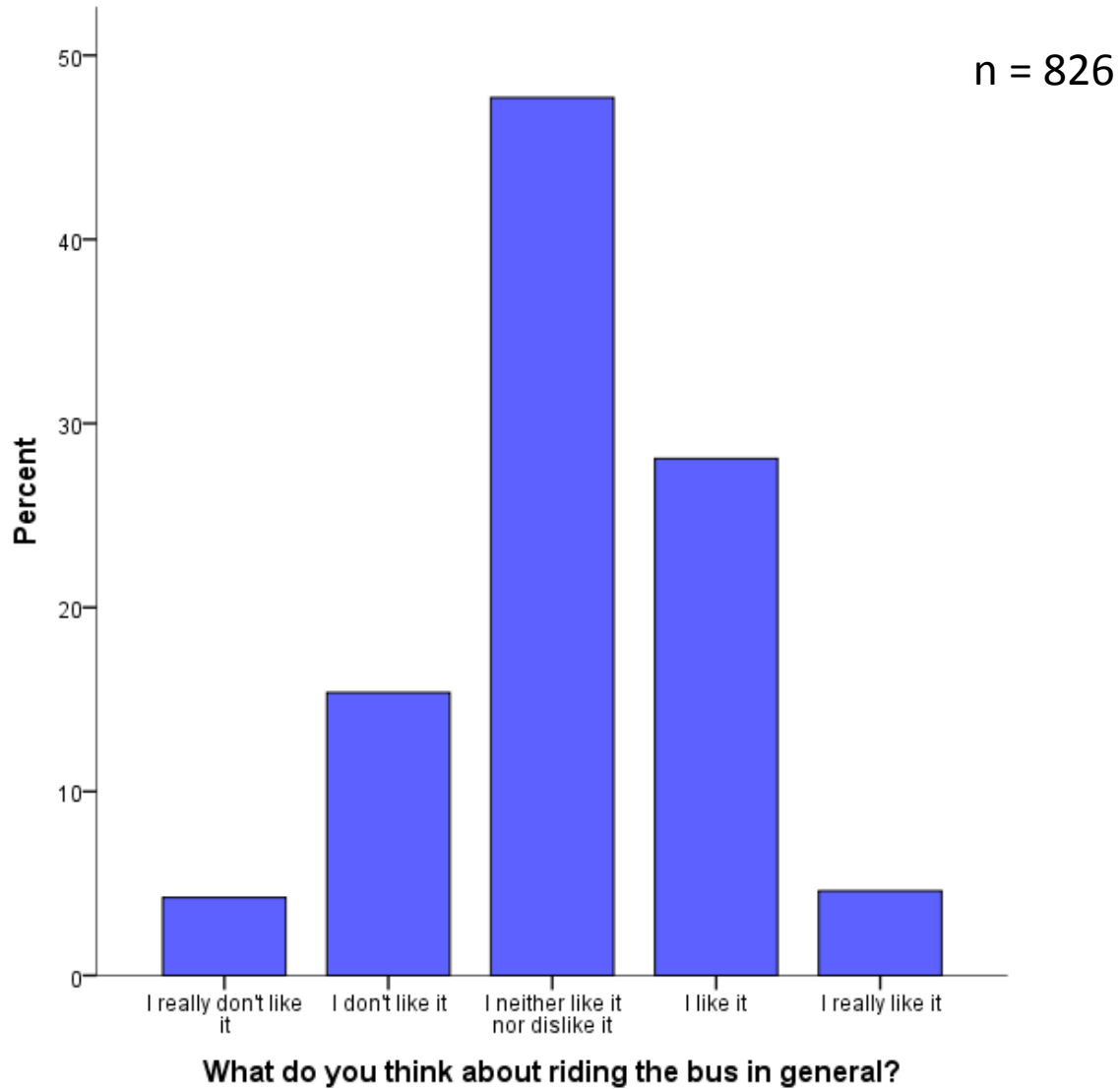
Therefore travel-time activities are not always associated with creating distinctly positive experiences, but can (often) simply indicate **attempts to mitigate negative experiences** (boredom/stress) which are common on the bus



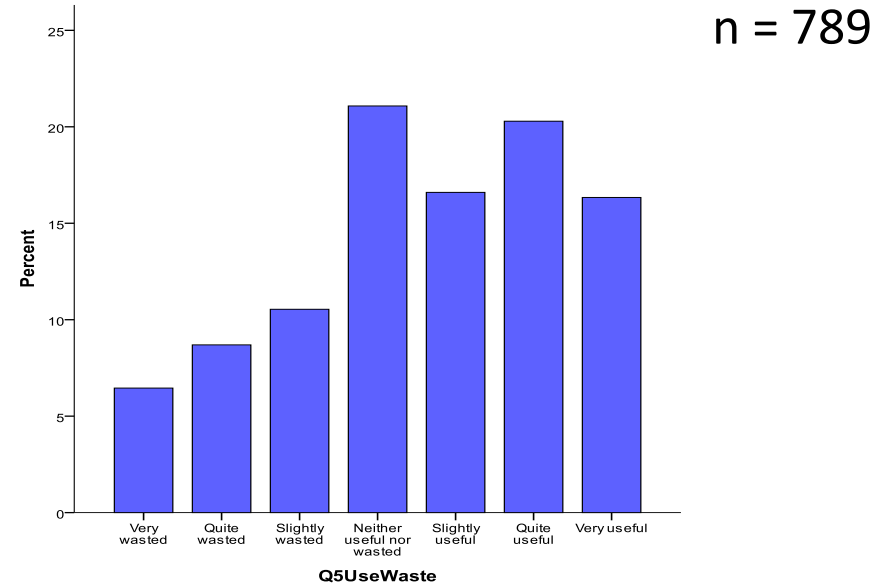
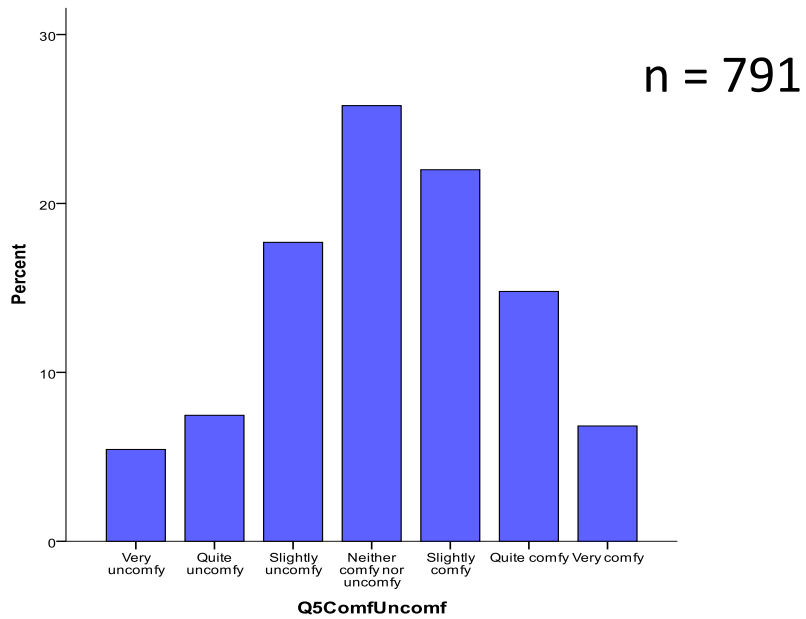
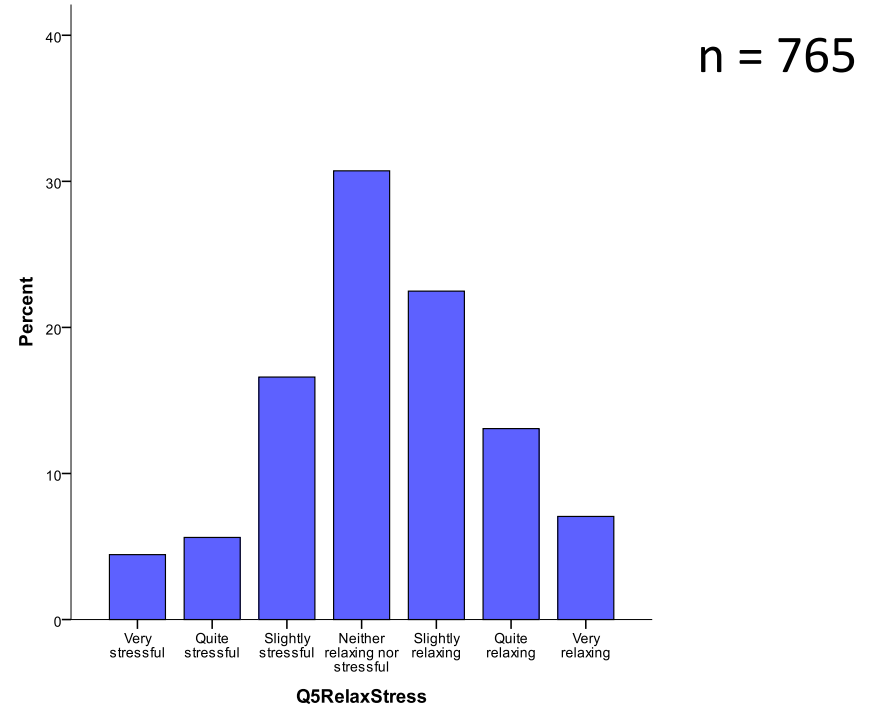
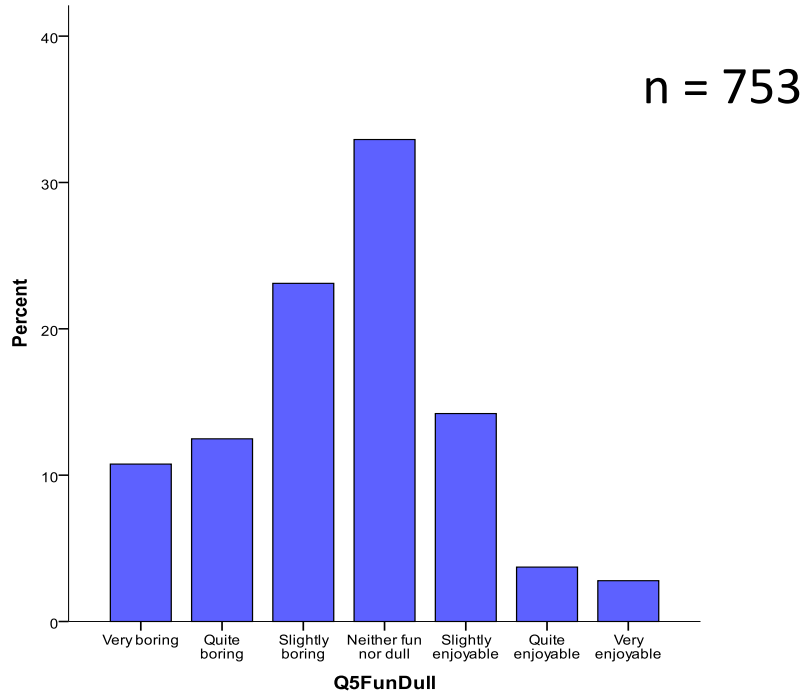
Key findings (2)

Perception and experience – a higher proportion of passengers like the bus than dislike it, although the majority are indifferent

General perception



Journey experience



Key findings (3)

Does travel-time activity influence journey experience? Different data/methods produce different results:

Quantitative data (ordinal regression analysis):

- **Punctuality, social (dis)comfort, and age** more important in perception and experience than travel-time activities

– *However* –

Qualitative data (thematic analysis):

- Travel-time activities on the bus are often **integral** to discussions of **relaxation, time-out/transition, disengaging from the bus, personal tasks, socialising**

Qualitative perspectives on travel-time



'I value my time on the bus either to have some time to relax before work and read or something. Or to unwind after work after being on my feet all day. Time on the bus is time when I can't be doing work or anything so I can relax without feeling guilty.' (Female participant)

'I quite enjoy that half an hour of actually switching off and just listening to music, you know, I quite enjoy that period before I get to uni, because I know it's going to be a day of study...' (Male participant)

'I use an MP3 player a lot of the time – it gives you an excuse not to interact with anyone.' (Male participant)

'An iPod makes the journey go quicker. If you're listening to something, you just sort of sit there and you're at your stop quicker than if you're just sitting there looking at the scenery that you see every day.' (Female participant)

Key findings (4)

Strong age disparity in the service perceptions and journey experiences of passengers on the bus

Older passengers (55+) perceive the bus significantly more positively than younger passengers (16 – 24) ($p < 0.01$)

Similarly, older passengers find their time on the bus to be significantly less boring, less stressful, and less wasted than younger passengers ($p < 0.01$)

'Willingness to engage'

Q: "How happy/comfortable are you talking to strangers on the bus?"

Q: "How happy/comfortable are you with strangers talking to you on the bus?"

- Those passengers that were more comfortable interacting socially with strangers on the bus (**but not necessarily actually doing it**) had:
 - a better overall perception
 - a more enjoyable experience of travel-time
 - a more relaxed experience of travel-time
 - a more comfortable experience of travel-time
 - felt their travel-time to be less wasted
- This suggests that the ways in which people perceive the social space of the bus is of great importance in forming service perceptions and journey experiences



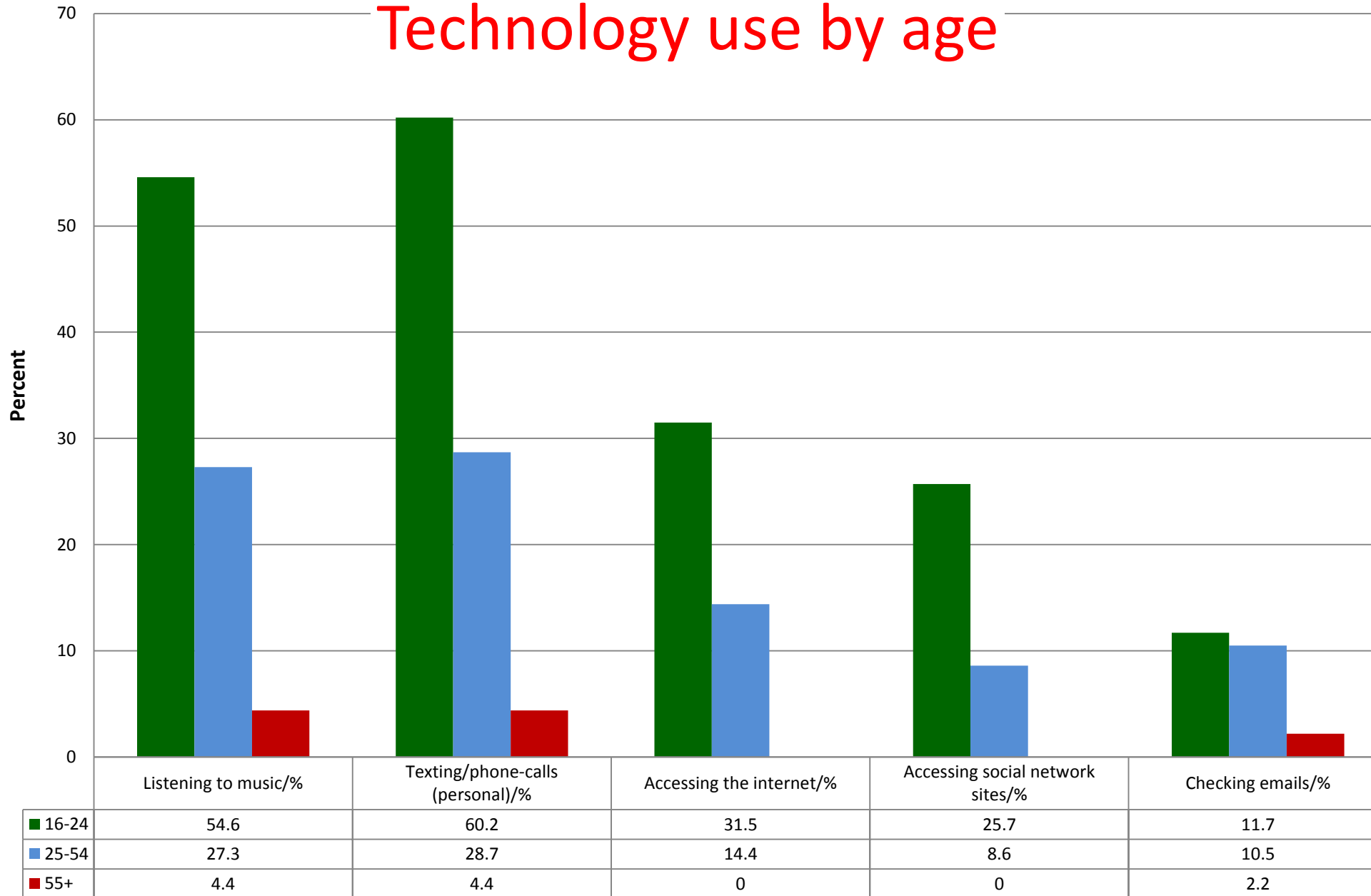
Key findings (5)

Younger passengers are doing more activities but yet are more dissatisfied – heightened activity an *indicator* of boredom/stress?

Travel-time activity by age (>15%)

16-24	25-54	55+
Metro – 33.7%	Metro – 45.5%	Metro – 30.4%
Talking – 26.1%	Reading for leisure – 15.8%	Reading for leisure – 18.5%
Daydreaming – 54.6%	Talking – 16.3%	Talking – 28.1
Window-gazing – 61.5%	Daydreaming – 40.2%	Daydreaming – 27.2%
Thinking/contemplating – 50.4%	Window Gazing – 59.3%	Window-gazing – 69.6%
Music/radio – 54.6%	Thinking/contemplating – 45.9%	Thinking/contemplating – 38.5%
Text/phone-call – 60.2%	Music/radio – 27.3%	
Eating/drinking – 15%	Text/phone-call – 28.7%	
Browsing the internet – 31.5%		
Social networking – 25.7%		
Being bored – 33.3%		
Avg. (mean) activities per-journey: 5.27	Avg. (mean) activities per-journey: 3.95	Avg. (mean) activities per-journey: 2.62

Technology use by age



χ^2 sig: $p < 0.01$

Key findings (6)

There is a difference in what passengers of different ages see as “acceptable activity” on the bus

Younger passengers (16 – 24) are significantly more comfortable with both themselves and others listening to music, making phone-calls, and eating and drinking on the bus than older passengers (55+)

Older passengers are significantly more comfortable talking to strangers on the bus than younger passengers

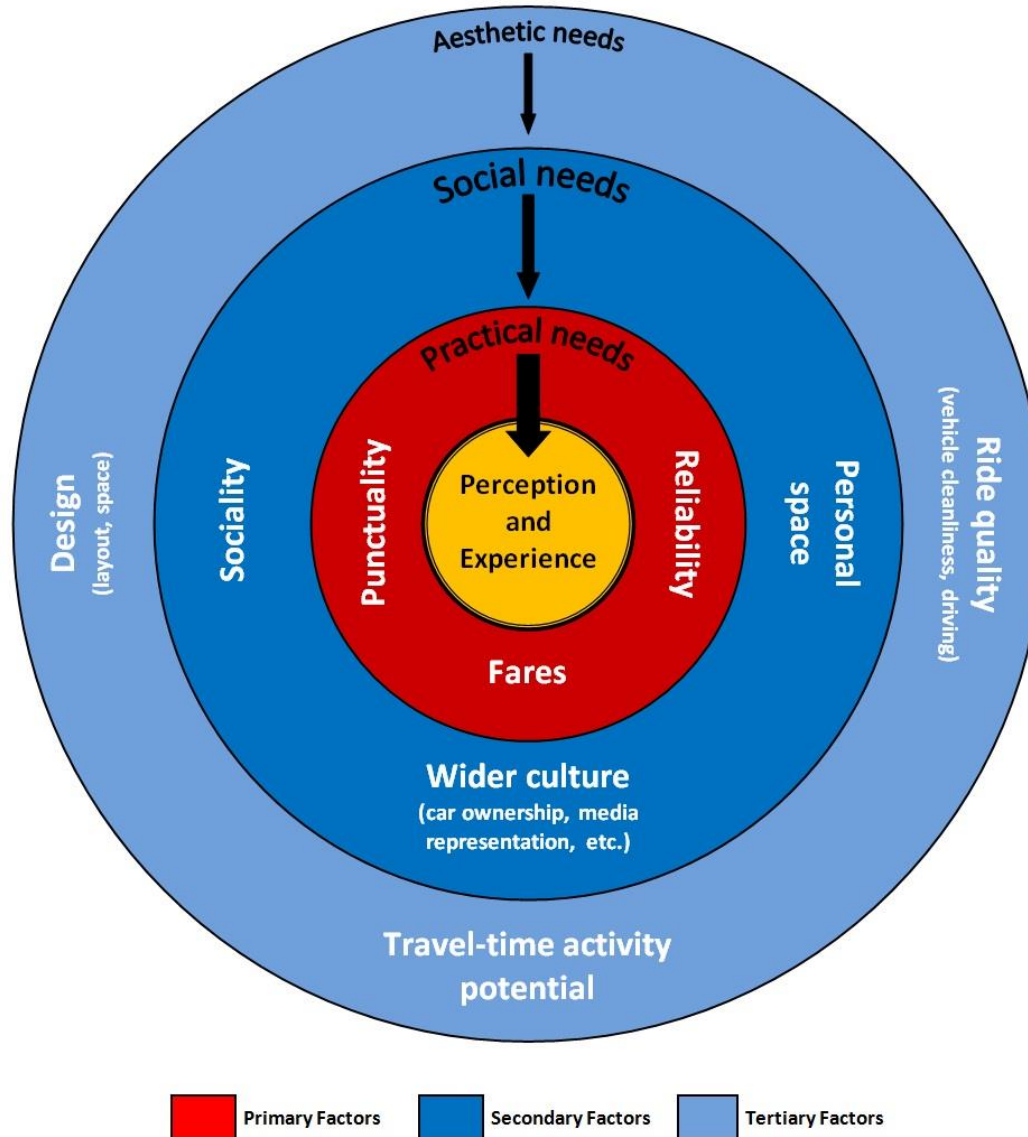


The bus as a 'social space'

- Social space can create the most **positive or negative experiences** of the journey
- Those more comfortable with the *idea* of **talking to strangers** more likely have a better perception of the bus
- Feeling of **lack of personal space** on the bus, and the they are **'on show'**. Tension between those who enjoy social interaction and those who wish to have privacy
- The **informality and homogeneity** of the bus environment is important
- **Older passengers more comfortable talking to strangers** but less comfortable using technology
- **'Facebook for the older traveller'?**



The wider service context



Implications – so what?

- Tapping into the longer-term trend of reduced driving licence holding amongst younger people (DfT, 2011)
- New mobile technologies make it possible to do more on the bus.
- Bus as 'time-out'
- In what ways can technology use be enhanced on board? What information could be given via these means?
- **Does time-out to engage in activity during travel-time provide a *marketable* aspect of the bus journey experience?**



Thank you for listening

Any questions?

<https://www.youtube.com/watch?v=75F3CSZcCFs>

<https://www.youtube.com/watch?v=4tlv3Z64HCI>