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Bus Tales

Travel-time use, technologies, and journey experiences on the bus

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A thesis submitted in partial fulfillment of the requirements of the University of the West of England, Bristol, for the degree of Doctor of Philosophy.

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Abstract

Recently there has been a growing interest in the ways in which people use their time during travel, and what different types of value (economic or personal) such ‘travel-time activity’ provides. The activities of public transport passengers have been explored from a number of perspectives, and several of these have been reported to have a positive influence on the experience of the journey. However, within existing research the bus has received almost no specific attention, with most studies focussing on the train. At the same time, there is a stated policy need to improve the attractiveness of bus travel and increase patronage on local bus services in the UK. This thesis draws these strands together, and investigates how the activities in which bus passengers engage on-the-move give meaning to their journeys and help to shape their experiences and perceptions of the mode. In doing so, it considers how a focus on travel-time activity is potentially a valuable way of improving journey experiences for users, and increasing the attractiveness of bus travel to non-users.

Identifying the need to explore travel-time activity on the bus, the thesis develops a discussion of what is already known about the ways in which passengers (largely rail passengers) use their time, and how this has been found to influence their experiences and perceptions of the journey. Within this, specific attention is paid to the importance of carried objects and mobile technologies (mobile phones, books, music players, and more) in facilitating travel-time activities. In doing so, this thesis considers how existing travel-time research is relevant to the context of the bus journey. It identifies and addresses three gaps in existing knowledge:

(i) It provides the missing link between research which has demonstrated that travel-time activity has the potential to improve journey experiences for public transport passengers, and research which has specifically explored the journey experiences of bus passengers.

(ii) It explores the current lack of understanding concerning the ways in which travel-time activities on the bus give meaning to passengers’ experiences of the journey. In particular, there has been little focus on how the travel-time “tools” – the carried objects, mobile technologies, and ICTs – are potentially enabling bus passengers to conduct different activities during travel-time.

(iii) It seeks to fill a gap in existing knowledge in terms of specific research into subjectivity of travel-time on the bus, and how it is enacted and experienced differently by different individuals and groups.

The thesis follows a three-phase methodology in generating new empirical data on travel-time activity and journey experience on the bus. First, two phases of qualitative
data collection were undertaken. This involved a novel online discussion group utilising the popular social networking site “Facebook”. Following this two focus groups were conducted with bus users and car users to explore the qualitative findings in greater depth and inform the construction of the final quantitative phase. This consisted of a large-scale on-board questionnaire survey of 840 bus passengers on five routes in Bristol, UK. Thus the qualitative data provided rich discourses and explanations of passengers’ experience of travel-time, and the quantitative data tested these findings amongst a sample of the wider bus user population.

This thesis finds that there are several activities and technologies particularly suited to the bus journey, and that people engage in these for a number of reasons. For example, travel-time activity is sometimes valuable for providing a “slice” of personal time within which to relax or complete personal tasks. For other passengers (or at other times) it helps to mitigate some of the more common negative experiences encountered along the journey such as boredom, stress, and social discomfort. The subjectivity of the passenger is central to explanations of travel-time use on the bus; travel-time is perceived differently by different people and thus is used and experienced in many ways. The thesis pays attention to the tensions that this creates within the collective experience of the journey. In particular the intensely social nature of bus travel is explained as being at the heart of the experience. For some the journey is a chance to socialise, where for others the public spaces of the bus can engender a lack of a sense of personal space and a negative experience.

In concluding, the thesis identifies a disparity between the quantitative and qualitative findings. The qualitative data go into depth in explaining the rich, contextual experience of activity, where the quantitative findings focus on the immediate experience and find other factors to be of more primary significance than activity – particularly punctuality, age, and a person’s social disposition. Thus, the thesis contextualises its own findings, highlighting the potential of travel-time activity in increasing the attractiveness of bus travel, whilst at the same time firmly framing the importance of this new knowledge within the wider picture of the bus as a service.
Acknowledgements

As I near the final stop and the end of this journey “on the buses”, I would like to give my thanks to all those people and organisations that have helped me throughout the research process.

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1.0 Introduction, context, and rationale

“A man who – beyond the age of 26 – finds himself on a bus can count himself as a failure” (Margaret Thatcher)

“Too often buses have been treated and seen as ‘second class’ transport. It doesn’t have to be like this” (John Prescott)

1.1 Introduction

The journey experiences of travellers and their use of time on-the-move is a topic that has received growing attention over the past decade. The present thesis seeks to develop this debate through a focus upon the travel-time activities of bus passengers. The research explores and explains bus travel in relation to the use of time, mobile technologies, and other carried items on the bus – introducing a new multi-disciplinary perspective to interrogate the journey experiences of passengers, and bridging the divide between transport studies and mobilities discourses. In its analysis of the existing research and new empirical data, the thesis describes a novel investigation into the passenger experience of bus travel, which has been significantly underrepresented in transport studies. The thesis draws together existing research into travel-time use; debates surrounding hyper-mobility; discourses of social constructions of time; and studies of affect. These are applied to primary data collected on the experiences and perceptions of bus travel amongst passengers in the city of Bristol, UK.

1 By most accounts this is an apocryphal statement, however it is popularly attributed to Margaret Thatcher by MPs in Commons debates (see: HC Deb, 2003; HC Deb, 2004).
This approach creates a new analysis of the quotidian experiences of bus travel, in relation to the travel-time activities of passengers and the carried objects that they use on-the-move. Specific attention is paid to the use of emergent Information and Communication Technologies (ICTs) and other mobile technologies, following the rationale that these mark a distinct change in the ways in which travel-time can be facilitated, structured, and potentially crafted. In doing so, the thesis generates a unique insight into the blending of the bus journey into people’s everyday socio-technical activity routines.

1.1.1 Thesis aims

The research questions are developed in Chapter III in relation to existing research (see: Section 3.5.1, p. 84). However, in order to contextualise the following three chapters, it is useful to outline the broad aims of the thesis at this point. Thus, this thesis aims to:

1. Explore journey experiences on local bus services in the UK and explain how the travel-time activities of passengers influence their perception and experiences of bus travel.

2. Explain the role that carried objects, mobile technologies, and ICTs play in passengers’ travel-time activities in the specific context of bus travel.

3. Specifically consider how the formation of service perceptions and journey experiences on the bus occurs; in order to generate useful new knowledge to add to current understanding of bus travel as-a-whole.

Through addressing these aims, the thesis explains the importance of travel-time use in the creation of journey experiences and service perceptions on the bus. This is relevant to developing current understanding of why people choose to use the bus. Furthermore it will be of interest to those seeking to improve the experience of bus travel and increase its attractiveness from a commercial or policy standpoint, which in practical terms could assist in a shift towards more sustainable mobility.
1.2 Context and rationale

1.2.1 Policy perspectives on local bus services

Local bus services in the UK are referred to in successive policy documents as being an essential mode of transport in helping to address modern sustainability issues including air pollution and urban congestion. In addition, bus services are ascribed some of the responsibility for mitigating social issues of exclusion and community degradation, through providing mobility to those individuals that are unable – or choose not – to have access to a car (see: DfT, 1998; DfT, 2004; DfT, 2007; DfT, 2011a).

Buses are the most popular form of public transport in the UK, and account for almost two-thirds of trips made by public modes (DfT, 2010a). However, more widely, modal share is dominated by car travel, with approximately 64% of trips in the UK being made by car, compared with 7% of trips being made by bus (DfT, 2011c). Where bus services have been identified as important from a number of social and environmental perspectives, nonetheless the bus still holds “minority” status when viewed proportionally in the context of the wider transport network, and this is reflected in the relative lack of focus on the bus in mobilities debates (Jain, 2009). The policy focus on bus travel follows a twofold rationale. The common theme running through the evolving policy statements of the 1997-2010 Labour administration – and carried forward by the new Coalition – is that bus services must be: (i) maintained in order to provide mobility for those people who rely on them; and (ii) improved to encourage more people to choose to use the bus over the car for some trips and help tackle issues of congestion and pollution. A crucial part of any such improvement is to remove the perceived stigma associated with bus travel, and therefore increase its attractiveness as an alternative to the car (Knowles & Abrantes, 2008). This thesis explores the potential that travel-time activity on the bus has to improve journey experiences and re-conceptualise perceptions of the mode, and has relevance therefore to future efforts to bolster, promote, and expand patronage. The significance of bus services within transport policy is expanded in Chapter II with reference to the relevance of local bus services within discourses of modern mobility.
It should be noted at the outset that this thesis was written during a period of relatively significant political change in the UK. This research period witnessed the displacement of the 1997-2010 Labour government – which shaped national and local transport policy for 13 years – by a Conservative/Liberal Democrat coalition. The Government’s inaugural 2011 White Paper for transport (DfT, 2011a) details the role that local bus services are to play in the transport network over its first term of office. However, due to the administration’s relative infancy, a critique of these policy measures against contemporary transport data has not been possible, restricting any specific commentary on the efficacy of its policy directions. This is discussed further in Chapter II.

1.2.2 The travel-time debate

This thesis focuses upon bus passengers’ perceptions and experiences in relation to their activities during travel, building upon and developing existing multi-disciplinary research examining travel-time use and the journey experience. Generally, travel-time use research presents alternative perspectives to the traditional and orthodox economic method for the valuation of the time\(^2\) that individuals spend travelling, and considers different ways in which travel-time can be conceptualised and understood. This thesis develops existing knowledge of the travel-time activities of passengers, and is theoretically positioned within literatures which consider the value of this time. Whilst situated within the theories and arguments of such studies, this thesis adopts a distinct position removed from the economic context that has been the concern of much of the travel-time use debates, as explained below.

The travel-time use debate has emerged from contestations of the economic transport appraisal perspective on the value of time spent travelling. The dominant philosophy that has directed transport thinking and planning in the UK since the mid-20\(^{th}\) Century has been that “travel is a derived demand”; fostering a view that the function and meaning of travel is found only in reaching the destination (Mokhtarian & Salomon, 2011b)

\(^2\)Values of Travel Time Savings (VTTS) (see: DfT, 2011b)
2001; Mokhtarian et al., 2001; Mackie et al., 2001; Watts & Urry, 2008; Lyons & Urry, 2005). This stems from ‘traditional’ trip-based analyses where the utility of a given journey is achieved in reaching the destination. The trip itself therefore is a disutility that is to be minimised: ‘the treatment of travel-time in UK appraisal straightforwardly identifies travel-time as wasted time and (implicitly) as discrete from the activities undertaken which give rise to travel’ (Lyons & Urry, 2005, p. 262). The current VTTS cost/benefit calculation used in the economic appraisal of new transport schemes assumes that all time spent travelling is wasted, and thus a disutility to the national economy, therefore by reducing travel-times there is a financial benefit to the economy (DfT, 2011b). Monetary values of travel-time savings are assigned aggregately to each mode (based upon the average traveller wage-rate for a given mode during working time, and on the basis of Willingness To Pay\(^3\) during non-working time), and these are used as a key part of appraisals of the economic viability of transport schemes (for a review of the studies that have contributed to this approach see: Wardman, 1998).

In response to this, more recently there is a growing body of research which contradicts this assumption that travel-time is wasted time (Mokhtarian & Salomon, 2001; Mokhtarian et al., 2001; Watts & Urry, 2008; Lyons & Urry, 2005; Lyons et al., 2007; Watts, 2008; Holley et al., 2008; Ohmori & Harata, 2008). Public transport in particular is now a focus for research into the positive value that passengers find in their time on-the-move. The notion is that, on public transport, the traveller is free to engage in a relatively broad range of travel-time activities during a journey. Such travel-time activity is of potential positive benefit to the individual, and conducive to a desirable journey experience. It is from this perspective that this thesis explores the notion of the “bus experience”, and asks what potential developing existing knowledge of travel-time activity (in specific relation to journey experience and perception of the bus) may have for understanding the passenger experience in general. This in turn is

\(^{3}\)A person’s ‘Willingness To Pay’ is based upon the assumption that ‘people implicitly put a value on their own time, in that they will trade a cheaper, slower journey against a faster, more expensive one’ (DfT, 2011b, p. 4). Thus, a monetary value can be calculated to represent the personal cost of travel during non-working time.
potentially desirable for those promoting public transport from a commercial or policy standpoint.

The issue of the economic valuation of travel-time is relatively ubiquitous within transport studies, and has an impact in areas discussed later. Indeed, the whole question of the importance of travel-time to passengers has arisen from the debate surrounding the economic valuation of time. However, this debate does not dictate the unfolding of the discussion in this thesis. This thesis does not aim to investigate the validity of these approaches, nor challenge or critique appraisal methods. Rather it explains how individuals that use the bus give meaning and personal value to their journeys through the activities they engage in on-the-move. This demonstrates an alternative understanding of the bus journey as being more than a means-to-an-end, and argues that there is value in developing existing knowledge on the social (and cultural) positioning of bus travel. The travel-time debate has shaped a new area in which many different understandings of the journey experience are being explored. Therefore, whereas this thesis is situated within the theories and arguments of the travel-time debate in its exploration of travel-time activity and journey experience, its perspective is broader than the specific economic focus of the majority of existing studies.

The travel-time use literatures illuminate the everyday experience of travel for public transport passengers, and demonstrate that travel-time is often desirable to passengers in a number of ways. Travel-time on public transport provides passengers with a freedom of time; they do not have to be in control of the vehicle and are able to engage in a range of activities on-the-move. Travel-time can provide the opportunity for working (Lyons & Urry, 2005; Mokhtarian, 2005; Holley et al., 2008; Lyons et al., 2007; Ohmori & Harata, 2008); as ‘time-for’ personally productive or valuable tasks (Jain & Lyons, 2008); as time for socialising with others (Beirão & Cabral, 2007; Stradling et al., 2007); as transition time, giving the traveller time to ‘adjust and alter between places, such as work and home’ (Jain & Lyons, 2008, p. 85); or simply for relaxation and ‘time-out’ from the day’s routine (Jain & Lyons, 2008; Noble, 2008; Stradling et al., 2007). Jain and Lyons note that (2008, p. 88):
Chapter I – Introduction, context, and rationale

‘Travel time is enacted and experienced in multiple ways and is context driven; therefore, not easily reducible to an economic value. It is also clear that travel time is a desirable time for many people in many instances, and is actively incorporated into the organization of everyday activities and work-related tasks’.

However, it is also recognised that the experience of travel by public transport is often articulated negatively by passengers – it has been described as boring, uncomfortable, wasted, socially intense, threatening, or unpleasant; to pick but a few descriptors (see: Guiver, 2007; Stradling et al., 2007; Watts & Lyons, 2011; Bissell, 2010). Individuals experience travelling in diverse ways.

Recent studies have shown that the traveller can play an active role in the explicit control and construction of their experiences, expectations, and perceptions of travel-time through the ways in which they use and engage with this time, and furthermore through the different carried objects and mobile technologies that they can utilise on-the-move (Watts & Lyons, 2011; Watts, 2008). Therefore there is a range of different journey experiences available to the traveller dependent to a certain degree upon how they spend their time whilst travelling. This suggests that the traveller is actively involved in the creation of a positive journey experience, and not simply a passive recipient of a pre-defined journey experience which they are handed by service providers. Passengers’ agency in the creation of journey experience leads this thesis to take a user-centric perspective in its focus on journey experience and time use in the bus environment. This is achieved by structuring the debate with the passengers as the central object, where the subject of the discussion moves through the various realms of mobility, policy, journey experience, and time use.

Existing research into travel-time use and the journey experience has focussed predominantly on the train, with travel-time use on the bus receiving little specific attention in both transport studies and the mobilities literature (Jain, 2009). For example, Watts (2008) has explored the crafting of travel-time by rail passengers, and has considered the ways in which experiences of travel-time are shaped and constructed by the mobile routines and activities of the traveller. Schivelbusch (1980) has explained how train passengers have “hidden” themselves away from each other
in books and newspapers since the advent of passenger rail travel. Bull (2005) has considered the use of personal listening devices (such as iPods and Walkmans) by rail passengers, and discusses the ways in which these devices allow the user to assert control over their aural experiences of the environment. Watts and Lyons (2011) have demonstrated individuals’ abilities to compress or stretch their experiences of time on a journey through application of their innovative ‘Travel Remedy Kit’ (see: Section 3.3.3, p. 55), by which passengers are encouraged to engage with their rail journeys and play an active role in controlling their journey experiences. These all contribute to positioning theoretical debates that assist in analysing the bus journey, and are explored in depth in chapters II and III. However, this thesis explores the assumed similarities and differences between travel-time on the bus and the train, and demonstrates the specific nature of the bus journey. At the broadest level it is this scarcity of knowledge about the travel-time activities and journey experiences of bus passengers that this thesis seeks to address. Current research into travel-time use and passenger experience has engendered an important understanding of the journey as more than simply a means-to-an end. However there is a need develop existing theory and evolve the travel-time debate to explore other perspectives.
1.3 Thesis structure

To this point, this chapter has introduced the key purpose of this thesis – to explain the relationship between travel-time activity and passenger experience and perception in the context of the bus. The thesis is structured in seven chapters. The overall thesis structure is presented in Figure 1 below.

Following this chapter, Chapter II presents a critique of literatures related to modern society and systems of mobility, and a consideration of the position that bus services hold within these. The chapter provides a perspective on the relevance and importance of bus services in contemporary UK society, discussing modern automobility culture and how this contrasts or conflicts with traditional concepts of a local bus service. The relevance of such a conflict is considered in relation to differing theoretical perspectives on modern mobility. This debate is set within the context of wider sociological discourses of ‘hypermobility’, which assert the increasingly instantaneous and dislocated form of modern systems of mobility, typified by heightening flows and interactions of people, objects, and information. Chapter II explains that the bus and its operations are firmly situated within – and constrained by – the wider networks and structures of UK society, which both facilitate and inhibit mobility.

In Chapter III, this wider societal discussion is taken forward and aligned to existing research related to travel-time spent on public transport and the passenger experience of inhabiting these mobile spaces. Chapter III considers existing debates of travel-time use by (largely rail) passengers and considers how travel-time activity is hypothesised to allow individuals to gain some control over their travel and create positive journey experiences. It critiques the different ways in which travel-time and the journey experience have been conceptualised, and moves to explore existing research which has considered the affective experience of travel on public transport. Within this discussion, the role of carried objects and mobile technologies are explored, with a focus on the use of augmentative mobile technology such as music players, mobile phones, and smartphones. This explains how such technologies provide the means for people who use them to potentially ‘craft’ their experience of a journey, and interact
simultaneously with the immediate social environment and their wider social networks – where it is now possible to be ‘perpetually present’. The relevance of this to the journey experience is considered. Chapter III concludes with the research questions that frame this thesis. Furthermore this chapter develops the theoretical rationale for this research through a critique of the different methodological approaches that have been employed to explore and theorise travel-time use and journey experience.

Chapter IV explains the justification and format of the research methodology. The chapter considers the ontological and epistemic assumptions that underlie and inform the research approach – axiological issues are discussed and the ethical framework used in the data collection is described and explained. The chapter moves to detail the three phases of the methodology – explaining the practical issues that were met and bridged in the qualitative and quantitative data collection, and exploring theoretical issues of incommensurability encountered in such a mixed-methods approach.

In Chapter V, the results from the data collection are presented. This chapter presents the analysis of the data before the discussion chapter (Chapter VI) moves to interpret these results in the context of existing research. Accordingly, the discussion chapter relates the empirical findings to the wider travel-time literature, to which new knowledge has been contributed. These chapters lead towards a critique of the two perspectives that are generated by the two different methodologies, and an explanation of how both are important in considering journey experiences.

Chapter VII summarises and concludes the thesis, presenting the central findings, reflecting upon the research process, discussing the implications of this research for transport authorities, bus operators, other stakeholders, and suggesting avenues for further research.
Figure 1 - Structural overview of thesis
Chapter II

2.0 Bus policy and sustainability

“In the 1950s, bus travel was a key part of the economic and social landscape and it defined – rather than reflected – most people’s lifestyles”

(Ten Percent Club, 2006)

The purpose of this chapter is threefold: (i) to establish the role and importance of local bus services in the UK, (ii) to explain how the bus is currently positioned relative to other forms of mobility (in particular the car), and (iii) to develop the thesis’ rationale and identify why generating new knowledge about bus passengers’ journey experiences and travel-time activities is important. Focussing on the significance of bus services at the local level, this chapter first explains the tension between “mundane” modes of travel, and systems of automobility and discourses of hypermobile society. Considering the relevance of bus services from both a sustainability and a social standpoint, this chapter next critiques policy literature and statistical data on bus patronage. It identifies a gap in existing research as to the role that travel-time activity might play in bus passengers’ journey experiences, and furthermore its influence on the reasons that people choose to use the bus. Thus, this chapter provides the themes, context, and wider political and theoretical positioning of bus services that is necessary to develop the debate in Chapter III, which considers in greater depth what is actually known about the quotidian experience of “getting the bus” for the passenger.


2.1 Localism and hypermobility

Local bus services have two functions: they connect people with and within communities, but furthermore are politically perceived as a key mode in encouraging a modal shift away from car use for some trips, which will help attend to issues of air pollution and traffic congestion (DfT, 1998; DfT, 2004; DfT, 2007; DfT, 2011a). However, despite this socially, environmentally, and politically important role, bus travel has received relatively little academic attention. The focus of most literatures which explore modern mobility is predominantly on notions of ‘hypermobility’, in which increasing speed and flow are paramount (Bauman, 2000; Virilio, 2001; Castells, 1998). Bus services do not fit easily into these visions of heightening mobility – local buses must follow specific bounded routes, and must adhere to set timetables and limited speeds. Bus travel is largely absent in discussions of hypermobility, and thus subjugated somewhat in existing research by these more dominant discourses.

This section critiques this disparity, exploring why it is that discourses of bus travel are less prominent, before considering other perspectives on mobility in identifying the role of bus services within modern transport networks. The following section develops this discussion and questions how the aspirational policy goals for the role of the bus fit within the dominant system of automobility and the wider UK “culture” of car travel.

2.1.1 The importance of bus services in modern UK society

Local bus services are ascribed significant importance in transport policy. For the past 13 years, the bus has been conceived in policy documents as being the “workhorse” – or the backbone – of the UK’s public transport network; historically undervalued yet possessing great potential. For more than a decade, political rhetoric has described bus services as a key asset of the transport network; capable of mitigating increasingly prevalent societal “ills” such as social exclusion, community degradation, traffic congestion, and air pollution (DfT, 1998; DfT, 2004; DfT, 2007; DfT, 2011a). The New Labour government’s 1998 transport White Paper stated that ‘buses [are] to lead our
transport revolution for the 21st century (...) buses will be cleaner, more comfortable and more reliable, a real and attractive alternative to using cars’ (DfT, 1998, p. 10 – emphasis added). The subsequent 2004 White Paper described the bus in terms of its potential to assist in effecting important policy outcomes, emphasising the need to:

‘Make better use of buses to help reduce congestion and tackle social exclusion. Buses need to be attractive enough for motorists to choose them over the car for some trips. And they also need to provide mobility for people who do not have access to other forms of transport’ (DfT, 2004, p. 66).

The role of bus services in the 2011 White Paper is somewhat more subdued – as is this administration’s stance on bus services in general – however there is a continuation of the policy direction from the previous decade, buses are still attributed their “core functions”: providing essential mobility (particularly to those with no other choice of mode), being key in cutting urban congestion, and assisting in the reduction of aggregate levels of pollutant emissions from the transport sector (DfT, 2011a).

Bus services operate primarily at a localised scale. Good access to public transport options is ‘important to people on a local level’ and – for many – a constituent element of making a particular community a good place in which to live (DfT, 2011a, p. 22). It is widely recognised that attractive and accessible public transport options are a crucial aspect in planning sustainable urban development. Where mixed-use development reduces the distances people need to travel day-to-day, this land use and form allows local buses to provide more efficient, sustainable mobility than is currently witnessed in the dominant situation of sprawl (Camagni et al., 2002; Jabareen, 2006; Banister, 2008; TRB, 2009; Banister, 2011). Buses are the predominant mode of public transport used for local trips, and bus use is highest for journeys of between two and five miles (DfT, 2011a). As noted in Chapter I, the number of trips by bus in the UK accounts for over two-thirds of all trips by public transport. However, buses account for only 5% of the total distance travelled by all individuals on all modes, covering almost 50% less distance per passenger than the train despite facilitating nearly twice as many passenger trips (DfT, 2011c). Chart 1 below presents current statistics on journey purpose by bus and car. It is evident that local bus services in the UK are used primarily
for shopping, leisure, commuting, accessing education, and for personal business (DfT, 2010b), and Jain (2009, p. 93) notes that ‘bus travel is clearly rooted in the ordinariness of everyday practices such as commuting, shopping, visiting places and people’.

Chart 1 - Proportion of bus and car trips per person by journey purpose (2008) (DfT, 2010b, p. 2)

Jain (2009) suggests that bus travel embodies a certain mundanity. Noble (2008) has discussed the ‘quotidian’ experience of bus travel, explaining its ‘everydayness’ as non-glamorous, homogenous, and repetitive. The bus is inscribed into the bespoke forms and practices of local communities, and journey experiences of bus travel are varied across the UK dependent upon the local landscape and the population (Jain, 2009). However there is commonality in the experience: bus services are structured into routes and times, coordinated and synchronised by schedules. In their function of providing localised mobility within communities, buses must follow set routes, often weaving and meandering steadily through back streets and residential areas in towns and cities, and down country lanes and through villages in rural areas. Despite the importance of bus services that is argued from several perspectives in successive policy documents, the mundanity and “everydayness” of bus travel has contributed to its significant underrepresentation in the literature. The following section presents a
critique of discourses of hypermobility, considering how these have come to the fore in debates surrounding modern mobility. Moreover, it explores alternative perspectives which question the assumed inevitability and ubiquity of increasing speeds and unfettered individual mobility in modern society.

2.1.2 The predominance of hypermobility

The prosaic nature of everyday bus travel contrasts with modern discourses of mobility, which focus predominantly on notions of hypermobility and the perceived quickening of flows of people, objects, and information in society (Bauman, 2000). Central to these discourses is the social construction of time as “clock time”. Different social constructions of time that are important in contextualising the experience of travel-time are introduced in Chapter III; however, here clock time is introduced before this later discussion as it is central to discourses of hypermobility. Clock time is the time of society at-large; of timetables, of the economy, of the watch. It is immutable and continues at a set pace, irrespective of people’s individual relation to it. Clock time is ubiquitous and institutionalised in contemporary social practice (Adam, 1990); it is the dominant construction of time in modern life, and its roots lie in the precise scheduling and organization of individual activity necessitated by processes of industrialisation (Adam, 1998).

The economy requires time to be divisible into equal units so it can be counted, and thus the standardisation of time has allowed units of time to be valued economically. While the clock provides a universal way of synchronising activity, it also uniformly measures duration against which an activity output can be quantified (Adam, 1995, Daly, 1996). Time and the economy are now inextricably entwined. In having economic value, clock time has thus made the speeding up of productivity an economic imperative. This focus on speed is a part of the “modernist vision” of the future that is strongly linked with the notion that ‘time = money’ (Adam, 1998, p. 66; see also: Larsson & Sanne, 2005).
The move towards speed has been embraced through technologies that can move people faster as well as produce goods more quickly, and these technologies have been promoted in urban and transport infrastructure design in the 20th Century (Harvey, 1989; Thrift, 1996; Banister, 2011). Heralded by the success and expansion of the railway during and after the industrial revolution (Schivelbusch, 1980), almost every aspect of UK society – and much of its physical landscape/infrastructure – has felt the effects of this technological acceleration. The biggest influence has come from the rise of automobility in the 20th Century, which has led to the modal dominance of car travel in the UK, and many other societies the world over (Miller, 2001; Thrift, 2004).

The transition from a pre-car to a car-centric society has been swift. The DfT detail the rapid growth of the car’s market share since the 1950s, and state that in the 1950s public transport and cycling still accounted for most personal travel (when measured in passenger kilometres) (DfT, 2007). Today the situation is much different; approximately 78% of the distance travelled and 64% of the trips made by surface transport modes at the current time are made by car (DfT, 2011c, p. 1). Latterly, the digital revolution has further increased concepts of speed and movement (see: Sheller & Urry, 2006; Bauman, 2000; Virilio, 2001). Speed has captured the academic imagination; however – simultaneously – slower speeds exist, such as those experienced on local bus services that are restricted by their routes and timetables. The discussion below considers where the bus can be positioned relative to such discourses of speed.

As a consequence of heightened speeds and increasing mobility, Bauman (2000) and Virilio (2001) describe the modern world as fluid and increasingly delocalised. In this new ‘liquid’ modernity (de-territorialised with a focus on speed) it is the instant that is paramount; and the swift transportation of individuals, images, information, and currency is key. The components of society – the people, the products, the social structures, and the cultures – are in a state of increasing flux; Bauman uses the metaphor of fluid mechanics in an attempt to describe this change. Pollock (2007)

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4 As either driver or passenger.
explains Bauman’s metaphor as describing a process of continual liquefaction and re-consolidation of these ‘solid’ components of society within and across geographical space (as opposed to simply a ‘constant lack of solidity’ (Ibid, p. 111)). Bauman (2000) argues that these changes are at once subtle and ubiquitous, the illusion of the traditional ‘stability’ of social structures and political functioning no longer hold the relevance they once did: ‘change is not the passage of the newly ordered; it is the condition of the permanently orderless’ (Pollock, 2007, p.111). It is like an arctic ice floe – illusory solid ground created and characterised by perpetual impermanence, fracture, movement, and reconstitution.

Such discourses suggest that localised or traditional notions of community are becoming less relevant. As societies push further into this new modernity they are increasingly freed from the trappings of ‘old’ notions of place and space (Bauman, 2000). Jensen (2006) and Castells (1998) explain that the flows of our ‘liquid modernity’ – the flows of capital, information, technology, organisational interaction, images, sounds, symbols, and flows of mobility – are the processes which dominate ‘the economic, political, and symbolic life’ in modern society (Jensen, 2006, p. 328). Of these flows, mobility is described as the dominant, or the ultimate – ‘it is a flow in a double sense. (...) Constantly “on the move”’ (Ibid). Temporally, the quickening of mobility flows is rapidly erasing and redefining spatial boundaries, as heightened speed brings the potential for ever-more interactions and opportunities which before would have been impossible to access within the same timeframes:

‘Distances, both physical and virtual, are becoming ever shorter, in that they can be covered in less and less time. Increased mobility does not just mean that speed continues to increase but also that distances are reduced – not literally but in the sense that they can be negotiated more swiftly, and therefore appear shorter’ (Ibid, p. 331).

Thus, experiences of hypermobility are often referred to in terms of ‘time-space compression’ (Harvey, 1989). Increasing speed allows distance to be harnessed in ever-shorter times, and thus the spaces between places become – or appear – compressed, and traditional geographic boundaries are weakened as they become easier to surpass. The recent proliferation of powerful ICTs has further increased this sense of
compression (Sheller & Urry, 2006), and a discussion of the relevance of these emergent technologies to the changing experience of the bus journey is developed over the course of this review.

This description of the flows of mobility in modern society is important when considering how bus services are a part of this liquid modernity. These discourses suggest that the notion of a bus service slowly serving local areas is outmoded. From Bauman’s (2000) perspective, bus services are operating in increasingly delocalised spaces whose inhabitants (and potential passengers) are ever more mobile and less tied to the “traditional” spatial and social boundaries of local communities – as these are opened up and coalesced to encompass the social demands of inhabiting a global community. Here, the bus as a form of mobility may be seen to conflict with such sociological discourses of speed; the perceived drive for ever-increasing instancy, fluidity, and velocity of mobility may not be easily matched by a local bus service that primarily operates within local boundaries, and which must adhere to set routes, times, and speeds.

From another perspective however, temporally structured and locally focused bus services remain deeply entrenched alongside the delocalised flows of modern mobility (physical, virtual, and informational). The local level at which people still live their lives is highly pertinent and yet often overlooked, and there is a need for co-existing systems of mobility which facilitate both the hypermobile and the hypomobile routines of people in their everyday lives. Massey (1993) argues that localised notions of place are as important in contemporary mobilities debates as the emergent – and dominant – concepts of ‘global’ time-space compression and delocalisation of community. In discussing alternative conceptualisations of place, Massey (1993, p. 63) asserts that it is necessary to abandon ‘easy and excited notions of generalized and undifferentiated time-space compression’, which have captivated much of the academic debate on the topic of mobility, yet which Massey claims can provide only one part of the story (Ibid). It is here that local bus services fit within transport networks, as a mundane mode operating at the local level, important to many people within their communities, and tied into the form and social structuring of these places.
This thesis seeks to assist in the need to focus on hypomobile and localised mobility through its explanation of travel-time activities and journey experiences on the bus; making visible the slow, structured, quotidian travel-time experiences of passengers that have previously been rendered invisible by the dominant discourses of hypermobility.

The hypermobility literatures thus present a vision – or description – of the form of modern society as one of delocalisation of community and increasing individual mobility. The rise of auto-mobility and the emergence and acceleration of powerful ICTs facilitating tele-presence have been huge contributory factors in engendering this form (Urry, 2008; Sheller & Urry, 2006). And yet there is evident contention in existing research into current and future mobility trends. Where the discourses of Bauman (2000) and Virilio (2001) point to the near-inevitable continuation/expansion of current mobility trends, this view of an ever-increasing individual ‘freedom’ from spatial constraint is the subject of dispute.

It is now being suggested that people’s levels of (and even desires for) personal travel are approaching a point of saturation (see: Metz, 2010; Millard-Ball & Schipper, 2011). Millard-Ball and Schipper (2011) conducted an international study of 8 OECD\(^5\) countries\(^6\) to explore trends in passenger transport, and their findings suggest that travel activity has reached a plateau at which aggregate passenger travel is seen to level off: ‘there are signs of a levelling out or saturation of total passenger travel since the early years of the twenty-first century’ (p. 363). Millard-Ball and Schipper (2011) go on to explain that the situation is even more pronounced when only private vehicle use is considered, and provide evidence that this has in fact declined over the past decade in most of the countries included in their research. Whilst they explain that they have not identified a specific causal mechanism for the observed plateau in travel activity, Millard-Ball and Schipper (2011) assert that their findings are indicative of a persistent trend which is – at best – only partially influenced by short-term factors such as fluctuations in fuel prices. There is compelling evidence that this is the outset

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\(^5\)Organisation for Economic Co-operation and Development.

\(^6\)These are: The USA, Canada, Sweden, France, Germany, the UK, Japan, and Australia (Millard-Ball & Schipper, 2011).
of a longer-term trend ‘consistent with behavioural theories of travel-time budgets’ (Ibid, p. 372). Due to the aggregate travel-time budget of approximately 1.1 hours per day that is devoted to personal travel, it is generally increasing speeds (or time-space compression) which has allowed travel activity to increase within this budget (Schafer & Victor, 2000). However in exploring this notion, Millard-Ball and Schipper (2011) develop a discussion by Metz (2010), and explain that:

‘Even if travel speeds do increase, declining marginal utility to new destinations implies that there exists some saturation point for travel demand. While in the past, higher speeds from infrastructure improvements have been used to access more distant destinations rather than reduce aggregate travel times, this relationship may no longer hold’ (Millard-Ball & Schipper, 2011, p. 358).

This notion is highly relevant to this thesis, and assists in conceptualising contemporary experiences of bus travel in relation to the discourses of hypermobility. Where it has been suggested earlier that the structured, mundane experience of bus travel does not fit well within discourses of hypermobility, this might be seen as pertinent only from the perspective of physical mobility. Of particular relevance here is the rapid and continuing increase in the use of ICTs which has been explained as contributing to the more recent experiences of hypermobility through the virtual mobility and connectivity these facilitate (see: Sheller & Urry, 2006; Urry, 2008). Reflecting on Millard-Ball and Schipper (2011), if physical mobility is potentially reaching a point of saturation, it is ICTs that are now at the forefront, and are the future of continuing experiences of hypermobility. With reference to the virtual connectivity and mobility that ICTs facilitate, new technological practices are being layered on top of existing social practice. What is of most importance in the context of this thesis is that people can engage in these virtual practices on-the-move – during their travel-time (see: Lyons & Urry, 2005; Lyons et al., 2007; Lyons et al., 2011; Line et al., 2011). Thus from this perspective, as virtual connectivity becomes increasingly prevalent in relation to its physical counterpart, travel-time on the bus can be seen to be of high relevance to future experiences of hypermobility as passengers become increasingly able to engage in these virtual practices during their journey. This notion is developed further in relation to new empirical data and existing research throughout this thesis.
2.1.3 Summary

It has been noted earlier that bus services are identified in successive policy documents as being key in tackling issues of social exclusion and a lack of individual mobility (see: DfT, 2004; DfT, 2011a), which are issues identified as being aggravated by the modern fixation on systems of hypermobility (Sheller & Urry, 2006; Shove, 2002; Jensen, 2006). There is need to focus on localised and hypomobile modes such as bus services which form an important part of healthy and desirable community life (DfT, 2011a). Furthermore, current Government policy documents identify the need to increase the use of the bus over the car for some trips to help mitigate other negative consequences of increasing personal mobility such as pollution and environmental degradation (see: DfT, 1998; DfT, 2004; DfT, 2007; DfT, 2011a).

Nonetheless, as discussed earlier – far fewer people use the bus than the car. The private car – and the national system of automobility it has engendered – is the dominant form of mobility in the UK, and buses must compete not only with other modes on the transport network, but also with people’s auto-centric lifestyles and the wider cultural impact of the car (see: Section 2.2.2, p. 26). The following section first explores current demographic and patronage data on bus use in the UK, going into greater depth on trends in usage and making comparisons to other modes. The section then moves to discuss proportionally low bus patronage in relation to the cultural impact of the car, and the effects that this is seen to have on perceptions of bus services. Finally Section 2.2.3 explores what is known about why passengers use the bus, and considers the relevance of travel-time and the journey experience to people’s travel choices.
2.2 Bus travel in the UK

The purpose of this section is to consider why relatively few people travel by bus in comparison to the car, and to explain that travel-time activity and journey experience might be an overlooked part of the choice that some passengers make in using the bus. This section first identifies the current statistics detailing bus patronage, and critiques the policy literature in relation to this data, questioning how the policy rhetoric surrounding the bus compares to the current situation of usage. Following this, a discussion of the dominant “culture” of car travel in the UK is presented, which helps to explain why the bus experiences low patronage. At the close of this chapter, discussion turns to introduce literatures which highlight an opportunity to take an alternative experiential perspective, considering travel-time activity on the bus as potentially an overlooked factor in the reasons that people choose to use this mode.

2.2.1 Rhetoric and reality

As noted earlier, in terms of mode share, today approximately 7% of trips in the UK are made by bus, with bus services catering for 5% of total distance travelled (DfT, 2011c). A little over two-thirds of public transport journeys made in the UK are made by bus (DfT, 2011c) – although when measured in terms of the distance travelled this proportion is less. Further to this, Lyons et al. (2008) note that trips by bus are not spread evenly across the population, but rather a relatively small proportion of individuals are using the bus frequently, compared to a relatively large proportion that are only using the bus very rarely, if at all. Thus it is evident that whilst trips by bus represent a major proportion of public transport journeys, they are nonetheless minor in usage when compared with the car.

Statistically, the bus conforms loosely to its stereotypical image described in the literature. The bus is viewed as the mode predominantly used by ‘groups of commonly disempowered people’ (Guiver, 2007, p. 238): the elderly, the disabled, parents with young children, students, unemployed people, people on low incomes, and generally those unable to afford or drive a car (DfT, 1998; Guiver, 2007, Stradling et al., 2007;
Bus Partnership Forum, 2003). The data shows that these more marginalised groups within society are using the bus most regularly. In terms of age, the highest proportions of passengers are younger people, closely followed by passengers in the oldest age category: the 17-20 age groups for both genders have the highest usage by age followed by the 60+ age groups (DfT, 2010b). Furthermore, those that earn in the lowest income quintile make more than twice as many trips as those in the highest quintile (Ibid). Additionally, more women use the bus than men, making on average 83 local bus trips per year compared with a male average of 63; although there is an upward trend for male bus users (Ibid).

The statistical profile of bus services conflicts with the image of the bus presented in the policy documents. In earlier White Papers from the last Labour government, reference is made to the ‘stereotypical’ image of bus passengers: ‘too often buses have been treated and seen as ‘second class’ transport’ (DfT, 1998, p. 32), ‘the less-affluent – students, retired (…) and unemployed – use buses more than others (DfT, 1998, p. 19). The 1998 White Paper highlights the need to change this historic and ingrained image, stating that:

*By giving buses greater priority and improving information networks, we can encourage more people to use buses. Increasing passenger numbers could transform the economics of bus operations, opening new horizons in quality, reliability and network expansion*’ (DfT, 1998, p. 32).

However as the current patronage statistics above demonstrate, thirteen years on from this policy statement, the demographic profiles of bus users can be argued to have changed little from those at the time New Labour came to power. Over a decade hence, the incumbent Coalition simply re-states this aim, emphasising that: ‘Public transport needs to be more attractive if it is to offer a viable alternative to car travel’ (DfT, 2011a, p. 51). There is thus a question of how bus travel might be made to be more attractive, and this thesis considers the role that travel-time activity plays in giving meaning and value to experiences of bus travel.
Despite this, a review of public attitudes to transport conducted by Lyons et al. (2008) contests the notion that a negative stereotypical view of bus travel is widely held amongst the UK population:

‘Formerly common views of negativity towards bus travel are not necessarily borne out by recent evidence, where large majorities reject the view that buses are only for people who cannot afford any better, though nearly half say they would only use buses if there were no other choice’ (Ibid, p. 31).

Lyons et al. (2008) assert that regardless of the general alignment of the statistics with the bus’s stereotypical profile, the negative connotations of this stereotype are not accepted by a large majority of the population. However, the qualifier within this statement that – despite the evidence – ‘nearly half say they would only use buses if there were no other choice’ demonstrates that there is a negative view of the bus itself amongst many people, even if not of those individuals that use it. Indeed, research by Guiver (2007) into how individuals talk about bus travel suggests that there is still a general perception of buses as being reserved for those of lower social status: ‘Bus travel was mostly seen as benign, offering: a mode of travel available to the less fortunate (those unable to drive, unable to afford a car)’ (p. 243). Stradling et al. (2007) support this view. Referring to research by the Bus Partnership Forum (2003), Stradling et al. note that:

‘One barrier to increased bus patronage is held to be the image of bus services in the UK: ‘a transport mode that has become associated with young people ... elderly people ... and people on low incomes ... i.e. a mode of last resort’” (Stradling et al., 2007; see also: Bus Partnership Forum, 2003, p. 9).

The bus is conceived therefore in policy literature as being a key component of the UK transport network: a leader in a transport revolution that can engender a shift away from the complete dominance of the private car, and take with it the unwanted side effects of increasing auto-mobility – congestion, pollution, social exclusion, and community degradation (DfT, 1998; DfT, 2004; DfT, 2007). Statistical data demonstrates that this is not the reality of the situation. Bus patronage is still
comparatively low, and the demographic profiles of those using the bus are skewed towards the poorest, oldest, and youngest in society. The big policy statements about the bus are betrayed by the statistics, and it is difficult to argue from the literature that the bus is indeed now leading the transport revolution of the 21st Century.

This thesis holds that negative stereotypes of bus passengers are a part of a wider negative cultural perception of bus services in the UK in relation to the car. The closing sections of this chapter explain this negative cultural perception, and consider how this common perception makes it difficult for bus services to compete with the car on its own terms. However, as discussed in Chapter I, travel-time activity has been identified as an important aspect of experiences of public transport, and yet the journey experiences specifically of bus passengers in relation to travel-time use have not been the focus of research. Before moving to a more detailed discussion of travel-time activity in Chapter III, this chapter explains that sometimes the journey experiences and the travel-time activities of passengers are potentially an overlooked positive aspect of the bus journey. This provides a new experiential perspective on the bus journey which challenges some of the negative connotations of the bus in relation to the car. This highlights the relevance of the focus on travel-time activity and journey experience in this thesis, which represents a re-conceptualisation of the bus journey on its own terms – providing an alternative experiential option to that of the car journey.

2.2.2 Competing with car culture

This section explores the differences between experiences of car travel and bus travel, and uses existing research to develop the notion that the common cultural perception of bus travel in relation an idealised, abstract image of “the car” is unhelpful in efforts to improve the attractiveness of bus travel and encourage greater use of the mode. This sets the debate for the final discussion section of this chapter which considers how the potential for travel-time activity could be a useful re-conceptualisation of the bus experience on its own unique terms.
It has already been noted that the popularity of automobility in the 20th Century has led to the modal dominance of car travel in the UK, and many other societies the world over. In its dominance, the car has become the principal icon of contemporary experiences of mobility. There is a wide body of existing research which explores the experience of car travel (Sheller & Urry, 2000; Dant & Martin, 2001; Jain & Guiver, 2001; Miller, 2001; Thrift, 2004; Sheller, 2004). From a functional standpoint, the car is perceived as the pinnacle of personal spatial freedom and temporal flexibility. Cars are – under ideal road and traffic conditions – able to go wherever, whenever; in contrast, buses must follow set timetables and routes which are not always useful or convenient. Research by Guiver (2007) demonstrates that this most often leads bus services to be compared negatively to car travel in participants’ discourses. Whilst the functional benefits of car travel form the foundation of comparative perceptions, Urry (2008) asserts that more widely the car has created its own culture. It has psychosocial meaning attached to it in a sense that other modes do not, and so owning a car brings certain perceived personal and social benefits that other modes cannot match:

‘The power of auto-mobility is the consequence of its system characteristics. Unlike the bus or train system it is a way of life, an entire culture’ (Urry, 2008, p. 347).

Modern systems of automobility are described as a nexus between the driver and the wider networks of society (Jensen, 2006). Sheller and Urry (2000) similarly describe the car’s position in modern mobility as: ‘the dominant culture that sustains major discourses of what constitutes the good life, what is necessary for an appropriate citizenship of mobility, and which provides potent literary and artistic images and symbols’ (p. 739 – original emphasis). Through its cultural construction – borne from its ability to connect people to ever-more opportunities, and cemented by its representation in the modern media of films, television, and marketing – the system of automobility has become inextricably entwined with ideas of freedom (Banister, 2005). Baudrillard (1996) describes the affective appeal of motorised movement:

‘Travel is a necessity, and speed is a pleasure... Movement alone is the basis of a sort of happiness but the mechanical euphoria associated with speed is something else altogether, grounded for the imagination in the miracle of motion. Effortless
mobility entails a kind of pleasure that is unrealistic, a kind of suspension of existence, a kind of absence of responsibility’ (Baudrillard, 1996, p. 66).

This links back to earlier discussion on hypermobility: speed and the discourses of hypermobility have not only dominated the academic imagination, but captured the cultural imagination of society more widely. In the case of the automobile, most often it is the traveller who is in control of the ‘mechanical euphoria’, as the driver of the vehicle. Unlike public transport therefore, it is not only the functional or aesthetic aspects of car travel that can have appeal, but also the power and control inherent in the interaction between the driver and the vehicle which adds a further layer to the journey experience. Dant and Martin argue that this ‘means that other means of transport cannot simply substitute for cars’ (2001, p. 144).

When we seek to explain how experiences of travelling and travel-time are culturally constructed, it is important to understand: ‘how people talk about travel time and use metaphors related to travelling in everyday conversations’ (Banister, 2011, p. 957). Listening to people’s “tales” of the bus provides insight into the different ways in which the journey experience is created, articulated, and communicated by and between individuals and groups. Guiver (2007) discusses how the experience of the bus journey is conceptualised and described in relation to the experience of driving a car. Drivers evoke the experience of ‘freedom’ in the car, compared to the restrictions and uncertainty of the bus timetable. Bus users similarly contextualised the bus experience using the car as a standard: ‘often examples illustrated the poor performance of buses in comparison to cars’ (Guiver, 2007, p. 237). Bus journey experiences are conceptualised by passengers in an ongoing, episodic manner. Worst-case scenarios are then often selected to represent the more general experience of a bus journey (Ibid). In the case of the car, a different conceptualisation occurs. The car is most often described in a generic, idealised way:

‘Car travel was mostly referred to as a consistent, homogenous commodity (...) contrasted with the ‘vulnerable space’ of buses and portrayed as safe and private, providing control over the immediate environment (there was no mention of car
passengers’ experience) and protection from other people, although no-one described their own car interior, just that of an abstract generic car’ (Guiver, 2007, p. 241).

Here the cultural connotations of automobility are evident in the conceptualisation of personal experience of car travel against a generic standard – or idealised stereotype. Whilst these constructions might not be true for all – or even a sizeable minority – of people, nonetheless at the broader level the bus itself is not culturally constructed to the same positive degree by society and its media, and therefore is inevitably compared to the cultural standard of the car experience. Linking to the notion of ‘mechanical euphoria’ – which drivers will have arguably the most intimate connection to – it is important to note in Guiver’s (2007) research that car travel is rarely conceptualised from the perspective of being the car passenger, only being the car driver. Therefore the car’s cultural image is unique and distinct from public transport modes in the person’s control of the vehicle.

This is a key issue in this thesis. Travel-time experiences on the bus will *always* be different to travel-time experiences in the car; therefore a focus on exploring and explaining travel-time activity and use in relation to both positive and negative journey experiences potentially represents a re-conceptualisation of the bus experience, enabling it to move out of the shadow of the powerful cultural image of the driving experience. In its focus on travel-time activity in relation to journey experience, this thesis explores a new experiential perspective on the bus journey.

### 2.2.3 The potential of travel-time activity and journey experience

For over a decade it has been accepted that there is a need to remove the ‘stigma’ associated with bus travel (Knowles & Abrantes, 2008), and yet little ground has been made in this respect. It has been noted that the 2011 White Paper for transport reconfirms the need to make bus travel ‘more attractive’ if it is to compete with car travel, and aid in ameliorating the negative effects of car use (DfT, 2011a). There is therefore a question as to how bus services might be made more attractive, and this thesis explores the notion that the journey experiences of passengers are an important
part of the attractiveness of bus travel, beyond the functional arguments of control and flexibility.

This notion is one which is gaining recognition, and literature published by some stakeholders in the bus industry provides some evidence that the importance of the journey experience is increasingly a consideration in service improvements. An example of this is The Ten Percent Club: an interesting collective of bus industry stakeholders that describes itself as:

“A group of industry professionals who share the belief that there is growing evidence, from industries more conventionally associated with the consumer society, that the appeal of the bus can be increased if creative thinking is applied to understanding customers’ desires using modern sophisticated techniques of market research, product development, and marketing” (2006, p. 8).

The book from which the above quote is taken describes novel media and marketing approaches to expanding bus patronage compiled from the experiences of nine successful bus services. It heralds perhaps the inception of a different way of thinking within the bus industry which still largely operates on traditional – and arguably somewhat outdated – philosophies of service promotion. The Ten Percent Club (2006) has identified the necessity to focus on experiential improvements in increasing the appeal of bus travel:

‘The conventional approach to the “product quality” problem has been to invest heavily in improving reliability, frequency, vehicle accessibility, etc. in the hope that this would attract new customers by virtue of the basic functional benefits that the service offers. In fact, the target group, and the response that is desired of them (not to actually use the bus more, but just to think about it positively) is not likely to be achieved by rational argument alone and, indeed, this is very likely to be of secondary importance to emotional arguments and soft factors that defy straightforward explanation’ (p. 11).

Lyons et al. (2008) explain that ‘research indicates an underlying desire for safe, secure, smooth and tranquil modes of travel’ (p. 31). However, they do not provide
any further analysis or explanation of such a desired travel experience. In Chapter III, tranquillity is identified as being a key component of a desirable passenger experience (Stradling et al., 2007; Bissell, 2009). This thesis explains the relationship between travel-time activity and the creation of such a tranquil bus journey experience, and thus how a bus journey might be re-conceptualised as desirable from this perspective.

Chapter I situated travel-time activities as an integral part of the crafting of journey experiences by public transport passengers (Watts & Lyons, 2011; Watts, 2008), however it is also noted that such studies focus predominantly upon travel-time use on the train. There is the potential that bus passengers are crafting their travel experiences in similar ways, and that the travel-time experience of a bus journey is something which is desirable – or attractive – to passengers (and potential passengers). Following this rationale, the thesis explores travel-time activities on the bus, and the use of carried objects and mobile technologies, and seeks to explain the role that these play in the journey experiences and service perceptions of passengers.

In discussing the relationship between instrumental (here time-efficiency) and experiential factors – in this example with the explicit intention of encouraging bus use – Mann and Abraham (2006) note that:

‘Given the difficulties inherent in making public transport services as time efficient as car use (...) tackling the affective 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 – original emphasis).

Therefore the travel-time activities of passengers are important in understanding journey experiences on the bus. The cultural impact of car travel negatively affects perceptions of bus travel, and thus this thesis holds that instead of attempting to emulate the experience of car travel, travel-time activity on the bus provides an opportunity for bus travel to be an alternative experiential option to the car. This
section has explained that there is a gap in knowledge as to the role that travel-time activity might play in bus passengers’ journey experiences, and furthermore in how this aspect of the journey experience might influence why people choose to use the bus. The closing section of this chapter summarises the key points from the literature which have lead to this conclusion, before Chapter III moves on to explore in greater depth what is already known about the travel-time activities and journey experiences of travellers.

2.3 Chapter summary

To this point, discussion in this thesis has explained that bus services are identified in successive policy documents as an essential mode of transport from both a sustainability and a social standpoint. It is evident that buses perform an important function at the local level, connecting people with and within communities. There is a stated policy need to encourage greater use of the bus, and to bring about a modal shift away from the private car for some trips. However, despite bold policy rhetoric about the importance of bus services, the modal share and the demographic profile of the bus and its passengers has changed little since New Labour came to power in 1997. Bus patronage remains low in relation to car travel – with current figures showing that the car accounts for 63% of trips made in the UK, where bus travel accounts for only 7% (DfT, 2010a), and bus policy has not changed significantly in the past decade as a response to this perceived stall.

Moreover, buses are significantly under-represented in the academic literatures that discuss modern mobility, which predominantly focus upon notions of hypermobility. This is suggested to be precisely because buses are inscribed with the “ordinariness” of everyday practice and life in local communities: they operate at the local level, and must follow set routes and times; thus, buses represent a certain mundanity which does not fit easily into dominant discourses of hypermobility. Furthermore, experiences of hypermobility are also highly relevant to wider societal perceptions of
the bus. Research shows that the experience of bus travel is most often perceived in relation to the wider “culture” of car travel, which is argued as the dominant experience of modern mobility. In this sense, the archetypal image of the car negatively affects perceptions of the bus.

Whilst it is therefore difficult for bus travel to mirror the experience of car travel, there has been a recent surge of academic interest in travel-time use on public transport, which illuminates the experiences of public transport passengers and demonstrates that travel-time can be desirable or attractive to passengers in a number of ways. However research interest into travel-time use on public transport has predominantly focussed upon the train. There is a gap in existing knowledge about travel-time activities and journey experiences of bus passengers. Thus, what has not been considered is that the bus journey potentially represents an attractive alternative experiential option in the potential for travel-time activity that it offers the traveller. In a similar fashion to the train, it is suggested that bus passengers are actively involved in their journey experiences through their travel-time activities on the move, which potentially allows them to craft a journey experience which is desirable.

Therefore at the close of this chapter it is recognised that there is a need to explore the travel-time activities of bus passengers in relation to their journey experiences and service perceptions of the bus. In doing so, this thesis provides a unique insight into the quotidian experience of getting the bus, and generates knowledge on the ways in which how people use their travel-time affects how they experience and perceive the bus more widely. In achieving this aim, Chapter III takes travel-time activity as its main focus, going into greater depth and presenting literature that explains what is already known about travel-time experiences of passengers.
3.0 Journey experiences and travel-time activities

“In short, travel time is made by travel time use”

(Watts, 2006)

This chapter is concerned with journey experience and travel-time use. The discussion of bus travel is developed here with a focus on how travel-time is spent on public transport, and how the passenger experience of inhabiting these mobile spaces has been represented in existing research. In doing so, it critiques existing research into travel-time use, explaining the different ways in which travel-time has been explored and interpreted. This chapter identifies two gaps in existing travel-time use research that are important in the context of the thesis aims (see: Chapter I). First is the lack of an explicit link between studies which have explored travel-time activities on the train, and those which have explored journey experiences on the bus. There is a gap in knowledge as to how the travel-time activities of bus passengers are influenced by travel-time activity, and furthermore how the carried objects and mobile technologies that people use during travel-time enable them to shape and give meaning to the experience. Second, there is a lack of specific research into the subjectivity of travel-time, and how activities and experiences on the bus vary at the disaggregate level.

This chapter also explains the varied methodological approaches that have influenced these differing perspectives on travel-time, and in doing so it develops the theoretical rationale for the research strategy detailed in Chapter IV. Each of the different approaches used to explore travel-time and passenger experience have created new insights into the journey, and yet they also have their limitations. This chapter critiques these to explain why the specific research strategy developed for this thesis was
necessary to evolve the travel-time debate in the context of the bus, and to address the research questions presented at the close of this chapter.

In exploring existing research on travel-time use and bus journey experiences, this chapter first discusses the way in which journey experiences on the bus are represented in official documentation – as a function of ‘passenger satisfaction’. Following this, the initial studies in the travel-time debate are discussed, which explore travel-time use and the journey experience from the broadly quantitative perspective of the productivity and utility of the journey. Next, discussion turns to studies which have developed a more qualitative concept of the experience of time spent travelling, and suggest it to be something more than a linear scale between productivity and unproductivity (or utility and disutility). This is next supported by a discussion of wider discourses which present several different ways of theorising and understanding the journey; providing a critique of insights from the psychological theory of affect, discourses of the collective sociality experienced when travelling by public transport, and discussions of experiences of boredom, stress, and comfort.

Thus, this chapter considers the role that travel-time activity plays in giving meaning to passengers’ experiences of travel-time. It explores what is already known about the travel-time activities of passengers and the carried objects and mobile technologies that people use on-the move.

### 3.1 Passenger satisfaction

Where attempts are made in official reports to represent the passenger experience it is routinely presented as a function of passenger satisfaction with bus services (Passenger Focus, 2011; Passenger Focus 2010; Scottish Executive, 2005; Scottish Executive, 2003). This section explains firstly how the opportunity for travel-time

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7Passenger Focus is an independent body set up by the UK Government to protect passenger interests. In 2010 they assumed the role from the DfT for conducting the Bus Passenger Satisfaction Survey (BPSS) across England (outside London). The BPSS is a rolling survey intended to monitor passenger satisfaction with bus services over time, and results are published quarterly and annually.
activity is not included as an explicit element of such satisfaction surveys, and secondly how this way of representing the journey – whilst useful in some respects – is insufficient to fully draw out the subjectivity inherent in the experience of bus travel. This sets the scene for the sections that follow, where the subjective travel-time perspective of this thesis is developed through a discussion of existing research into passengers’ experiences of being on-the-move.

Current measures of passenger satisfaction with bus services are based largely on instrumental aspects of the mode such as journey costs, journey times, and quality factors relating to infrastructure. The most recent figures for levels of passenger satisfaction with bus services from the national Bus Passenger Satisfaction Survey (BPSS) show that at the current time, overall satisfaction with bus services in England (excluding London) is 81/100 (Passenger Focus, 2011, p. 4). Overall satisfaction with services is further broken down into Key Performance Indicators (KPIs), which are taken to be the central areas of concern in influencing passengers’ satisfaction with bus services. Figure 2 below explains which of the KPIs passengers are the most satisfied with, and which are more pressing areas for improvement.

![Key Performance Indicators - England (excluding London)](image)

*Significant fall vs. same quarter last year

**Figure 2 - Current measures of bus passenger satisfaction (Passenger Focus, 2011, p. 4)**

Figure 3 details the relative importance that passengers place on each aspect of a bus service. It is evident that passengers place most importance on aspects of punctuality – the length of time waited for the bus and the reliability of the service (Passenger
Focus, 2011). Travel-time use – or the potential for travel-time activity – is not included as a KPI in the analysis, and so it is not possible to determine the importance which is placed on this aspect of the bus journey by passengers at the aggregate level.

![Image](image-url)

**Figure 3 - Importance rankings attributed to service aspects derived from KPIs (Passenger Focus, 2011, p. 6)**

However it is evident that there are KPIs which are strongly related to travel-time use, if not directly bearing its name. Several of the factors related to the physical spaces of the bus all have relevance to the potential for passengers to engage in different travel-time activities. Moreover, several of these service aspects are ranked comparatively highly as elements of overall satisfaction with services, lending some support to the rationale in this thesis that travel-time activity is an important aspect of passengers’ experiences of bus travel.

In developing understanding of different conceptualisations of the bus journey experience, the most important feature of this representation of the bus journey in the context of this thesis is that it presents the experience of bus travel as external to the passenger. The experience of the journey is something which happens to the traveller, as opposed to being something that they have an active role in creating. Later in this
chapter existing research is discussed which explains how the passenger plays a central part in creating their subjective experience of the journey through the activities they engage in during travel. Thus, where the above measures of satisfaction can explain how individuals perceive certain aspects of the service, nonetheless they say little about what the day-to-day experience of the journey means to passengers, and furthermore how the meanings that people attribute to their travel-time influence their perceptions and experiences of the mode.

This is evident in the discrepancy between the levels of satisfaction reported with bus services and the proportionally low modal share of the bus. The findings from official reports on passenger satisfaction all produce quite strongly positive impressions of service provision and passenger satisfaction. It has been noted that the most recent BPSS report places overall satisfaction at 81% – a high figure (Passenger focus, 2011). The findings from the Scottish Executive (2005, p. 1) survey describes bus passengers in general as ‘more than ‘satisfied”. Such statements suggest that the bus is providing a competitive and over-achieving service; and therefore reasonably it should be an attractive mode of transport. However this is directly at odds with discussion in Chapter I, where it has been explained that bus travel in the UK is in a state of virtual stagnation (DfT, 2010a; DfT, 2010b; DfT, 2004); and the further acceptance in the most recent government White Paper that (despite these high levels of passenger satisfaction) public transport is not seen as attractive in comparison to car travel (DfT, 2011, p. 51).

This discrepancy indicates a certain amount of impotence in these current official measures of satisfaction. The high reported satisfaction levels do not correlate with evidence detailing the current state of bus ridership. As such they do not provide a useful representation of people’s wider experiences and perceptions of bus travel. How ‘satisfied’ passengers are then with different aspects of service delivery can be seen to form only a part of the broader picture of what it is that might make bus travel attractive to travellers. The following sections move to discuss the role that travel-time activity plays in the creation of journey experiences, and furthermore explores the subjectivity of travel-time and the different ways in which the activities that people engage in shape and give meaning to their experiences of travel.
3.2 **Travel-time activity as productive**

As introduced in Chapter I, the recent surge in academic interest in travel-time use has been largely borne from contestations over the economic appraisal of travel-time as wasted time. The travel-time use literatures have been informed by research by Mokhtarian (in conjunction with others), which questions the long-held assumption in transport studies that travel is a derived demand – i.e. travel is purely a facilitator, and thus its only value is found in reaching the destination (see: Mokhtarian & Salomon, 2001; Mokhtarian *et al.*, 2001; Redmond & Mokhtarian, 2001; Mokhtarian & Chen, 2004). The foundational concept in this theoretical approach to travel-time is that travel is not always conducted with the only intention being reaching the destination, but rather that there are ‘cases in which travel is not a byproduct of the activity but itself constitutes the activity’ – which are termed as ‘undirected travel’ (Mokhtarian & Salomon, 2001, p. 715). Mokhtarian and Salomon further posit three ways in which travel-time can provide positive utility:

‘(1) [In] the activities conducted at the destination; (2) [In] the activities that can be conducted whilst travelling; (3) [In] the activity of travelling itself’ (2001, p. 701).

In a subsequent conceptual paper, Lyons and Urry (2005) refine this notion to specifically consider how the activities conducted whilst travelling contribute to a positive utility from the journey. Lyons and Urry (2005) consider that travel-time can potentially be used for a range of different activities during a journey – in particular for work purposes or other activities that can have a demonstrable economic benefit. This conceptualisation of travel-time as productivity time has lead to several further studies which have explored the value of travel-time, again from a utility-centric perspective. Thus, the main focus of most of the “core” studies in the travel-time debate has been upon challenging this assumption in appraisal that travel-time is wasted. As Lyons *et al.* (2007) note:

‘Now (re)surfacing is interest in a rather different proposition, namely that travel time is not merely a cost and thus, ultimately, something to be reduced to zero but instead something that can possess positive utility’ (p. 108).
Further to this, Lyons and Urry (2005) make assumptions about the different factors that might contribute to the potential for productive time uses during travel-time on different modes. From the perspective of the passenger, how ‘equipped’ passengers are with carried items and mobile technologies will influence the activities they are able to engage in on-the-move (see also: Watts, 2008; Jain & Lyons, 2008; Watts & Lyons, 2011); moreover it is suggested that a passenger’s ‘socioeconomic status, state of health and life stage’ might also influence his or her potential for travel-time activity (Lyons & Urry, 2005, p. 270). Furthermore, the paper proposes that the physical properties of a mode – levels of crowding, duration of journey, amount of space, frequency of stops – are also important in facilitating or limiting productive time use. Thus as Figure 4 below illustrates, Lyons and Urry (Ibid) hypothesise that modes may affect productivity.

![Figure 4 - Illustrative frequency distributions of ‘productivity’ of travel time by mode (Lyons & Urry, 2005, p. 270)](image)

The potential for productive travel-time activity on the bus is hypothesised to be low in relation to the car and train. This reflects the restricted spatial nature of the bus interior, the shorter journey times, and the regular frequency of stops. There is also an inbuilt assumption about the nature of bus use, as few business journeys are conducted by bus, and therefore it is assumed to have less relevance to notions of
productive time use. This question of the productivity of travel-time on the bus forms a part of the discussion of the thesis findings in Chapter VI, and this perspective on the potential for productive travel-time activity is critiqued throughout this chapter in relation to literatures which present different ways of understanding travel-time – more widely than productivity.

Thus, this theoretical focus on travel-time as productivity time can be seen to have an influence upon how a passenger’s journey experience in relation to travel-time use is represented. In these discourses, travel-time is viewed from a broadly economic perspective – the travel-time activities of passengers are aligned with the clock time imperatives of working and productivity. This perspective creates a particular understanding of passengers’ travel-time as something which is external to the individual. A passenger can have agency over how they use this time – by filling it with productive activity; however travel-time (and thus the journey itself) remains as an objective part of a wider clock time schedule. This approach has been useful in this thesis in exploring what types of travel-time activity passengers are engaging in on-the-move; however, it says less about the actual meaning of this time to the individual, as discussion below explains.

3.2.1 The utility of travel-time activity on the train

The notion of travel-time providing the opportunity for productive activity is not new, Richards and Mackenzie (1986) explain how passengers have been working, reading books, writing letters, and chatting to other passengers since the early days of passenger rail travel. However, earlier discussion has emphasised that there is a limited amount of existing research regarding travel-time use on the bus. Examples of travel-time use on the train are useful in exploring the activities of public transport passengers more generally. Furthermore, the quantitative aspects of these studies have helped to inform the development of the survey phase of the research strategy used in this thesis.
Several studies have investigated the travel-time activities of rail passengers in relation to the utility of the journey. Lyons and Urry (2005) set out the basic assumptions and hypotheses for the travel-time use literature that follows, and explain that ‘central to the hypothesis and to this paper as a whole is the contention that travel time is not (always) wasted’ (p. 263). Moreover, Lyons and Urry (2005) suggest a range of activities which they consider as possible time uses on the train. However, it is evident that not all these activities represent ‘economic’ utility on the move as a replacement of economic utility at the destination:

- Sleeping/snoozing
- Reading for leisure
- Working (reading/writing/typing/thinking)
- Talking to other passengers
- Window gazing/people watching
- Playing games (electronic or otherwise)
- Listening to music/radio
- Text messages/phone calls – personal
- Eating/drinking
- Entertaining children

(Lyons & Urry, 2005, p. 263)

Following this, Lyons et al. (2007) utilised quantitative data generated in the 2004 National Rail Passenger Survey (NRPS) in Great Britain to explore these travel-time activities, and how these relate to the utility of a journey. The study finds that the most popular activities amongst train passengers are: reading for leisure; window gazing/people watching; working/studying; talking to other passengers; sleeping/snoozing; and listening to music/radio (Ibid, p. 110). In exploring the utility of travel-time activity, the study questioned the extent to which travellers had viewed their time as ‘useful’ or ‘wasted’. The journey experience is therefore represented in relation to travel-time activity by counting the number of activities and analysing these in relation to the reported utility of the journey amongst passengers, and this methodology reflects the underlying hypothesis that travel-time can be represented in terms of its potential for productivity (Lyons & Urry, 2005; see also: Lyons et al., 2011).
When considering travel-time and the passenger experience more widely, a key issue with this approach is that it is limited in its ability to explore more complex subjective meanings of the experience of travel-time activity to passengers. For example, the findings of the research show that business travellers who were working/studying experienced high levels of utility from their journey (i.e. they perceived their time to be useful), however the data also finds that leisure travellers reported higher levels of utility than business travellers, which would appear incongruous from an economic perspective on productivity. Lyons et al. (2007, p. 114) attribute this to a particular alignment for leisure travellers between the purpose of their journey and the activities that they conduct during the journey – suggesting that it is an example of the old adage that ‘getting there is half the fun’. This is similar to the way in which Hupkes (1982) describes the pleasure of travel in-and-of itself – the attraction of the route as much as the destination (see also: Mokhtarian & Salomon, 2001). However, what this demonstrates is that when following such a utility-centric approach alone, it is difficult to disentangle the trip and the destination, and also that it is not possible to make a distinction as to whether passengers are actually experiencing their journey positively, or simply productively. The fact that travel-time is ‘useful’ does not necessarily have to mean that it is therefore also enjoyable, attractive, pleasant, or ‘fun’ (Ettema et al., 2012). Mokhtarian and Salomon (2001) also note this difficulty in drawing out different meanings of travel-time:

‘Measuring a positive affinity for travel is complex: in self-reports of attitudes towards travel, respondents are likely to confound their utility for the activities conducted at the destination, and for activities conducted while travelling, with the utility of travel itself’ (p. 695).

Indeed, Lyons et al. (2007) explain that they encountered inherent difficulty in quantifying specific levels of – or values for – utility to a particular activity on the train. It is not possible for example to know how the utility of travel-time compares to the utility of the same activity conducted in another context, and furthermore it is not always possible to establish the influence of ancillary activities – such as resting or window-gazing – on a person’s overall level of productivity (Ibid).
This key issue is important in evolving the discussion of the thesis findings in Chapter VI. The relationships between travel-time activity and different concepts or representations of journey experience are expanded upon through a discussion of the different contexts in which travel-time activities occur on the bus.

Existing research by Holley et al. (2008) pushes this perspective forwards. Holley et al. (2008) take a different approach in considering the relationship between productivity and travel-time, whilst working under the same utility-focused hypothesis. In exploring the travel-time activities specifically of business travellers on the train, Holley et al. (2008) take a ‘task-oriented’ perspective in exploring travel-time use, and consider how the activities conducted during travel-time form a part of a wider ‘taskscape’ (see: Ingold, 1993). Thus, activities that are conducted by business travellers on the train are considered by Holley et al. (2008) in relation to a broader concept of productivity or utility which is able to take into consideration the wider benefits of travel-time activities which might not be so easily argued as strictly productive from and economic (or employer’s) perspective:

‘By using a taskscape approach to understanding the organization of the working day, we can argue that ‘time out’ or ‘anti-activity’ (e.g. window gazing or sleeping) has a beneficial role for both employee and employer’ (p. 38).

Such experiences of ‘time out’ and ‘anti-activity’ are of particular relevance to travel-time use on the bus, and later discussion in this chapter – and chapters V and VI – develops these concepts in relation to the everyday journey experiences of bus passengers. However here, Holley et al. (2008) consider these ‘anti’ activities purely from the perspective of how these interact with – or facilitate – economic productivity as a part of a wider taskscape, within which the train journey is situated:

‘It can be suggested that a reason why non-work-related activities are conducted while travelling, and considered worthwhile, is that they are (implicitly) serving a work-related function’ (Ibid, p. 38).

Activities unrelated to working in a stricter sense are nonetheless attributed aspects of economic productivity via their contribution to the passenger being more prepared or
rested for working at other points in the day. Thus, they are not attributed specific value or meaning in-and-of themselves. This is relevant to the development of later discussion in this chapter which considers the importance of notions of “time-out” or “transition time” from alternative perspectives.

3.2.2 Mobile technologies and carried objects as ‘tools of productivity’

In a similar fashion, mobile technologies, ICTs, and other carried objects of passengers have been linked to levels of productive activity during travel-time on the train. Passengers’ use of carried objects and mobile technologies during their journeys is an integral part of travel-time activity, and these items facilitate a range of different time-uses on-the-move. In particular there has been growing interest across all of the travel-time literature in the potential of mobile ICTs. Brown et al. (2002) have explained how these are facilitating the now-ingrained and complex modern patterns of mobile communications which allow people to access information on-the-move, as well as to communicate with people both nearby and significantly further away. More recently, these ICTs are becoming progressively more powerful and able to facilitate an expanding range of different activities for the traveller which no longer fix activity to specific locations (Line et al., 2011; Lyons et al., 2011; Ohmori & Harata, 2008):

‘ICTs appear to weaken the bonds between human activities and the physical spaces specifically equipped to facilitate their conduct and ‘uncoupling of activities, places and times’ has been occurring’ (Ohmori & Harata, 2008, p. 547).

People use a range of different carried objects and technologies during their rail journeys: newspapers, books, food and drink, magazines, mobile phones, paperwork, laptop computers, personal stereos, games and puzzles, textbooks, netbooks, portable DVD players, and eBooks/iPads are all used by passengers (Lyons et al., 2007; 2011). There was a dramatic increase in the use of portable ICTs during travel-time on the train between 2004 and 2010; laptop use increased by 60%, the use of portable music players has doubled, and whilst the number of people carrying a mobile phone has stayed stable, there has been an increase in the number of people using their phone
during the journey (Lyons et al., 2011). This suggests that a similar technological trend might be occurring in the context of the bus. Exploring the use of carried objects and mobile technologies on the bus is one of the aims of this thesis set out in Chapter I, and the influence of these items on passengers’ travel-time activities and journey experiences is returned to in the following sections of this chapter.

The carried objects and mobile technologies that accompany passengers are discussed mainly in relation to their facilitation of productive activity. Their use is considered by Lyons et al. (2007) and Holley et al. (2008) to be an indicator of increased utility from travel-time, following the rationale that they enable productive activities. Particularly in the case of ICTs, the items that passengers carry with them are viewed from the perspective of a person having distinct tasks to complete, which the journey provides time for:

‘ICTs (and their continuing evolution, capabilities and affordability) increase the opportunities for, and worth of, time uses when travelling. The laptop and mobile phone together, for example, can potentially provide the individual with a mobile office comparable to their traditional spatially fixed office’ (Lyons et al., 2005, p. 117).

Holley et al. (2008) develop discussions by Frenkel et al. (1995) and Blackler (1995) of the changing workforce in the UK towards a knowledge economy, similarly note that:

‘The accompaniment of an increased availability and functionality of ICTs, means that, increasingly, travelling is no longer a barrier to productivity in itself. Indeed, this article highlights how travel time may provide unique (and often enforced) opportunities for work that individuals would find difficult, or be unwilling, to create elsewhere’ (p. 43).

Further to this, Lyons et al. (2007) asked passengers whether they thought that the use of electronic devices carried with them had made the experience of their journey “better”. A fifth of passengers found that the use of these items had made their journey a lot better. Moreover, the study found that the use of ICTs could make their individual experience of travel-time go faster (Ibid). Within this, there was a trend from young to old, with a higher proportion of younger passengers reporting that the use of
ICTs had made their journey better – and seem faster – than older passengers. Age in relation to travel-time use is a central theme in the development of the discussion in Chapter VI. Whilst these results demonstrate that mobile technologies have an influence on the experience of the journey for some rail passengers, there is no detailed data exploring how the journey was made “better”; Lyons et al. attribute the better experience to a better use of time. However, the fact that through using ICTs passengers were able to “speed up” the experience of the journey indicates a more subjective relationship between the passenger and the mobile technologies they carry (see: Watts, 2008; Watts & Lyons, 2011); one which is able to influence the journey experience in ways beyond simply getting more productive utility from the time.

Thus, this thesis holds that ICTs, mobile technologies, and carried objects are inextricably entwined into the mobile activity practices and journey experiences of travellers. However, their function of increasing the productivity of travel-time is suggested to represent only a small part of their wider relevance to the travel-time experiences of passengers. Different perspectives on the use of carried objects and mobile technologies are returned to in later discussion in this chapter.

### 3.2.3 Productivity and positive journey experiences

Having established that travel-time can be used productively, and that ICTs have augmented such activities, existing research demonstrates that a journey can be said to have positive utility. However, in making the case for the positive utility of travel-time, some of the findings and conclusions of these studies implicitly suggest that travel-time activity *in-and-of itself* is the creator of generally positive benefit to the journey experience of the passenger; and that being productive on a journey makes the experience of that journey more positive or enjoyable.

Importantly, Ettema et al. (2012) have recently challenged this assumption of “productivity = utility = positive journey experience”. More detailed explanations of passengers’ travel-time activities and experiences are required that explore this time
from a more qualitative perspective, considering the subjective meanings of this time; Holley et al. (2008) have commented on the semantic limitations of their findings:

‘There is a difference between understanding time in terms of quantification of unit output and looking at more qualitative interpretations and meanings to individuals of travel time’ (p. 34).

This section has looked at the initial way in which travel-time activity has been conceptualised in the travel-time debate. The discussion above demonstrates that the relationship between travel-time activity and the journey experiences of passengers is complex; travel-time activity is able to make journey time “better” for a proportion of passengers, and moreover is able to alter the experienced duration of travel-time for some passengers. This insight from Lyons et al. (2007) goes far beyond their initial focus on a journey being simply productive or unproductive. Their research has been useful in the context of this thesis in setting out what types of activities people are engaging in during public transport journeys. Furthermore, it has explored these amongst a wide sample of passengers. This is one of the advantages of the quantitative methodologies used to explore productivity, and this aspect is developed as a part of the mixed methodology detailed in Chapter IV. However, more is needed, in terms of a greater exploration of the actual experience of being the passenger.

Following the findings of the literatures discussed above, several further studies have explored travel-time use from a predominantly qualitative perspective, providing alternative explanations and meanings for the activities in which passengers engage on-the-move which will be addressed.

3.3 Travel-time as personal time

This section moves the travel-time debate from utility to experience, mostly informed by qualitative research, highlighting that travel-time is more than an opportunity for productivity or utility. This theoretical approach illuminates the subjectivity of the
journey experience, the role that passengers can play in the creation of their experiences of the journey (through their travel-time activities), and demonstrates that travel-time activity is contextual and can be experienced in a multitude of ways (see: Jain & Lyons, 2008).

The literatures discussed in this section present several different perspectives on time and experience, and this thesis builds on these whilst seeking to take its own distinct trajectory and develop the travel-time debate specifically in the context of bus travel. The perspectives critiqued in this section are predominantly qualitative. The discussion below considers how such discourses are both essential to understanding the subjectivity of travel-time, whilst at the same time having specific limitations that this thesis seeks to overcome. As this section will explain, a novel research strategy was required to draw the diverse strands of existing travel-time knowledge together.

### 3.3.1 Experienced time

Chapter II has explained that different social constructions of time are relevant in exploring the travel-time activities and journey experiences of bus passengers. To this point, only the dominant social construction of clock time has been introduced. Earlier discussion in this chapter has explained that a focus on travel-time as productivity time is aligned with a clock time perspective of a journey. Travel-time is viewed objectively as a piece of time within a wider schedule, and thus is essentially an empty container to be potentially filled with activities (or simply left “empty” in the absence of activity).

This section moves to explore literatures which consider journey experiences from the perspective of time as it is subjectively experienced. This thesis terms this construction of time ‘real duration’. Real duration – or real time/biological time – is the subjective experience of time passing and interactions occurring. ‘Real duration’ is used in this thesis as the inclusion of ‘duration’ in the term is apt in its explanation of that which it describes – a person’s experience of duration. Real duration is relative to lived experience and therefore has the potential to be at odds with clock time: ‘the
embodied experience of time is highly variable, sometimes passing slowly and sometimes fast’ (Jain & Watts, 2004, p. 8; see also: Adam, 1995).

Discourses of how time is experienced form a body of work which draws upon a wide range of social theories of time (for example see: Adam, 1990; Ingold, 1995; Lash & Urry, 1994; Latour, 1993). Therefore it should be noted that ‘real duration’ is just one term which may be used to describe the subjective experience of time, and there are several alternatives in the literature which are semantically indistinguishable. Noble (2008) uses ‘real duration’ based on Henri Bergson’s (1910) description of ‘durée’: ‘time as something we experience through change’ (Noble, 2008, p. 50).

Real duration is time which is made, crafted, and lived. The way in which real duration is described is a reflection of the subjectivity of time and the experience of its passing: ‘as a constitutive dimension of our lives, time is lived, generated, and known’ (Adam, 1998, p. 67). Whilst clock time is highly relevant to journey experiences on the bus (as buses are often a nexus facilitating passengers’ interaction with the wider clock time schedules of work, education, etc…), of equal importance when considering how passengers experience their bus journeys is this real duration of a given trip. A journey which lasts the same amount of clock time for all of the passengers on a particular bus has the potential to be experienced very differently at the individual level – with some experiences stretching out and others condensing – depending upon the different subjective contexts within which the journey is embedded. Watts (2008) discusses the relativity of time on the train, comparing the difference in real duration between herself and a passenger engrossed in a Sudoku puzzle:

‘Their time is not my time, their world is not my world. I am writing, watching, glancing, the journey almost too fast to capture with ink. Our travel times are not shared but situated in our differently paced practices: puzzle time and ethnography time. Our times are not relative, there is no temporal comparison possible between our worlds (...) Rather we craft our time differently using different artefacts, different practices, different methods’ (Ibid, p. 719).
In this description, time is ascribed subjective meaning and is relative to the individual. Subjective time spent travelling cannot be reduced to the amount of clock minutes that have passed since departure, and instead must be conceived as a function of both this and the perceived duration of time for a person on their journey. When viewed from the perspective of real duration therefore, the economic imperative of time becomes only one aspect of the travel-time experience. The real duration of the journey is another facet, and the bus represents an intersection and interaction between the clock time imperatives of the schedule and the subjective duration of the journey as it is experienced by the traveller (Jain, 2009).

This section now turns to explore travel-time use literatures which have considered travel-time as it is subjectively experienced, and considers how such representations are of relevance to this thesis’ aims of explaining the travel-time activities and journey experiences of passengers on the bus.

3.3.2 Travel-time as a gift

The notion that travel-time can at times be a “gift” to the traveller has been developed by Jain and Lyons (2008), and it extends the travel-time debate, expanding from a focus only on potential productivity during a journey. Jain and Lyons develop the metaphor of a journey as a temporal ‘gift’: positive experiences of travel-time can be articulated in relation to their benefit to both the individual and other members of their social networks (Ibid).

Jain and Lyons (2008) categorise positive experiences of the gift of travel-time into transition time and time-out. Such experiences are linked to earlier discussion in Section 3.2.1, in which ‘anti-activities’ and time-out are considered by Holley et al. (2008) as potential ancillary time uses which have a wider productive benefit. Here, these are experiences in-and-of themselves, which are constituent of a broader subjective meaning of travel-time to the passenger.
Transition time is identified as an important component of travel-time, and the concept ‘particularly articulates the liminal process of travelling; the potential to adjust and alter between places, such as work and home’ (Jain & Lyons, 2008, p. 85).

This thesis considers how such experiences of transition time form a part of bus passengers’ experiences, and the concept is returned to in following chapters. Transition time describes the experience of moving both between different physical places and different social spheres. It is referred to as one of the main articulations of why individuals ‘liked their commute or other journeys’ (Ibid, p. 86). The transitional qualities of travel-time are most often articulated in relation to more mundane experiences of travel-time (Richter, 1990). The time is seen as an important part of the ritual of changing identities between different social spheres (Pazy et al., 1996). Mokhtarian and Salomon (2001) have described something similar to transition time in their explanation of ‘anti-activity’: ‘the ability to use the time for relaxing or thinking, including ‘shifting gears’ mentally between origin and destination activities and roles’ (p. 702).

Time-out during travel-time is free time which is legitimised by the necessity of travel. The few examples of travel-time activity on the bus in the literature suggest that time-out is the predominant way in which time is experienced on this mode. Research into bus journey experience by Stradling et al. (2007) is returned to in specific detail in Section 3.4.3 (p. 74); however, their paper presents a series of statements by bus passengers which are useful here in describing the experience of time-out on a journey. Within all of the participants’ comments, there are similar phrases which summarise both the activities and experience of time-out:

‘Sit back; not worrying; read; reading; switch off; read; switch off; not having to think/concentrate; switch off; relax; look around; no stress; watching; views; switch off;

8 “Liminal” is used as a technical term in this thesis. In more general use, it simply denotes a threshold or the initial stage of a process. In its specific adoption in psychology however, liminal describes the threshold of sensation: ‘Defining the just noticeable deviation from indifference as a liminal pleasantness or unpleasantness’ (OED, 2011). Liminal is therefore used in this thesis to denote pleasant or unpleasant experiences of travel-time on the bus which are low in intensity (such as relaxation and boredom) and which are present to a significant-enough degree in passengers’ journey experiences that they can be argued to be a part of the fabric of the journey itself.
read; reflect; time to view; and watching the world go by’ (Short excerpts from focus groups – Stradling et al., 2007, p. 290).

Jungnickel (2003) presents several further travel-time activities that are related to this experience of time-out. Passengers discussed window-gazing (and also – separately – sightseeing); talking on the phone; talking to other passengers; ‘bus-spotting’; reading; people-watching; daydreaming; and writing poetry (Jungnickel, 2003).

Within experiences of time-out, a recurring theme is the opportunity this time provides in which to “do nothing”9 – and this is seen to provide a positive benefit in-and-of itself. Noble (2008) has similarly considered the “temporal freedom” that a bus journey offers, giving respite from the stresses of a busy schedule in which there might be scant time to simply relax, “switch off”, or “zone out” without engendering feelings of guilt. This represents the polar opposite of travel-time as productivity time, and the positive benefit of time-out is sometimes thus found in not having/being able to be active. As Jain and Lyons (2008) note:

‘There is a contrast then between the idea of productivity in terms of doing something like work and the less measurable personal gain from doing ‘nothing’” (p. 87).

Ross (1995) describes travel as a place of retreat. Time-out on-the-move is articulated as either time-out in its purest sense – i.e. time in which to do ‘nothing’; or as time for – where this time provides the opportunity for activities which are otherwise constrained by a busy activity schedule (Jain & Lyons, 2008). What travel-time on the bus can be put to use for is dependent to a greater or lesser degree upon how well ‘equipped’ the traveller is for travel-time activity (Ibid). Earlier discussion has explained how carried objects and ICTs are considered an important factor in the productivity of travel-time (see: Lyons & Urry, 2005; Lyons et al., 2007; Holley et al., 2008; Lyons et al., 2011); here these items redefine time in other ways. They can be used to make travel-

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9 “Doing nothing” is a slightly misleading (but inescapable) label which is generally used here to denote “not doing anything productive and/or visible”. In actuality even those ‘doing nothing’ are doing something – be it thinking, sleeping, relaxing, gazing out of the window, and so on. Doing nothing therefore might be taken to mean being traditionally “inactive”, or engaging in ‘anti-activity’ as described by Mokhtarian and Salomon (2001), Lyons et al. (2007), and Holley et al. (2008).
time relaxing, entertaining, useful, or social. The equipping of time by travellers is discussed in the following section.

Thus, a qualitative perspective on travel-time as it is subjectively experienced gives greater depth to the meanings of travel-time to the passenger. It extends the view of travel-time as productivity time to encompass a broader range of the experiential elements of the journey, which can have positive (or negative) benefit to the passenger. This also suggests that travel-time experiences are subject to a high degree of contextuality. It has been noted in Chapter I that travel-time is experienced in multiple ways (Jain & Lyons, 2008); this thesis holds that the subjective nuance of individuals’ interpretations of travel-time gives rise to a vast range of ways in which travel-time activities can potentially give meaning to journey experiences.

However, this also represents a limitation of qualitative perspectives on travel-time. Where most existing research points to the contextuality and subjectivity of travel-time, at the same time to be able to say anything meaningful at the level of the bus user population it is necessary to explain how travel-time activity is related to journey experiences in more general terms. Therefore, where in previous sections the quantitative approaches have been critiqued for saying to little about the subjective meanings of travel-time, the opposite might be said for the purely qualitative approaches taken in several studies (for example: Jain & Lyons, 2008; Guiver, 2007; Noble, 2008; Watts, 2008; Jain, 2009; Watts & Lyons, 2011).

This is a tension that runs throughout the travel-time debate, between the objective and the subjective theoretical positions to the issue. To-date, little research has been done which draws these divergent threads together. In seeking to develop the travel-time debate and move the discussion forwards, this thesis integrates elements of both the qualitative and the quantitative methodological approaches taken in existing studies, and uses these to inform the rationale for the novel mixed methodology discussed in Chapter IV. This thesis holds that it is necessary to do what other studies have not, and explore subjective, qualitative understandings of travel-time use on the bus amongst a wider passenger population. This is important in order to move the travel-time use debate forwards. This approach draws together divergent strands of
existing knowledge to create a fuller understanding of the value and meaning of travel-time, which draws on both qualitative and quantitative perspectives. This rationale is developed further throughout this chapter, and explained in reference to the mixed-methodology in Chapter IV.

### 3.3.3 Equipping time

Where there is a wealth of literature that explores the items people carry with them on-the-move, there is a lack of detailed insight into the use of mobile technologies and carried objects on the bus – and in particular a lack of research into how these “travel-time tools” are used to craft journey experiences in this distinct place. This thesis aims to attend somewhat to this deficit and provide useful insight into the influence of mobile technologies and other carried objects on the bus.

The things that people carry with them when they are on-the-move change the ways in which they are able to interact with the different spaces encountered along a journey. Jain (2009) explains that mobile technologies, ICTs, and other carried objects on the bus facilitate activities which ‘enliven dead time, and reduce the sense of time stretching out’ (p. 100). Having certain objects or technologies to hand equips the traveller and opens up to them the opportunity for travel-time activities and experiences which might not be accessible if they were to embark upon their journey “empty handed”. Jain and Lyons note that ‘equipping time is an essential part of crafting the journey experience’ (2008, p. 87).

There are many objects which are familiar to travel: newspapers, novels, briefcases, coffees, sandwiches, travel games, decks of cards, and a multitude more. More recently the advent of mobile ‘high’ technologies has made personal listening devices such as the iconic Walkman and iPod an inescapable sight in the streets and the spaces of public transport (see: Du Gay et al., 1997; Bull, 2005; Hemsworth, 2010). These are mirrored in the car by the car stereo (Bull, 2004a; Basmajian, 2010), and all can provide a personalised soundtrack to people’s movements through space. More recently than this, the advancement of mobile ICTs has meant that many people are now connected
on-the-move. Phone conversations now form part of the background chatter in the spaces of public transport, and emailing, texting, and web browsing are all becoming an increasingly normalised part of the experience of being on-the-move (Jain, 2009; Noble, 2008).

The objects with which people equip their travel-time can be used as travel-time tools, allowing the traveller to create or control their experiences of the journey. Watts (2008) talks extensively about the crafting of time, describing it in the same manner as an object which has material presence and which can be shaped and used productively or positively. Watts (2008) conducted an ethnographic observation of a train journey to explore the ways in which time is experienced on the move. Watts (2008) explains the notion of crafting as a way of understanding how the different elements of a journey contribute to the shaping of the subjective experience of time. Passengers craft their experience of time through the ways in which they use it whilst on-the-move, and through the social and spatial interactions which they choose (or must) engage in during the journey (Ibid).

The idea that the temporal experience of a journey can be crafted using the items that a passenger is equipped with follows the understanding that the real duration of a journey for a passenger does not flow in a line, but rather that it is relative and created by socio-material interactions (Ingold, 1995). At some points along a journey time might become compressed, and flow faster, whilst at others it can stretch out, and minutes seem like hours. Engagement in travel-time activity and the use of different items during the journey is able to create such compression and stretching: for example being engrossed in a novel might remove the passenger from the regular experience of clock minutes, and the journey could “fly by”. Watts (2008) notes that this is not simply a different incarnation of time-space compression as discussed in Chapter II, where clock-time is compared to a position in Cartesian space; rather, crafting travel-time is the subjective making of real duration.

‘In short, travel time is made by travel time use. Even if the traveller does nothing but stare, they make their time stretched or compressed by this practice’ (Watts, 2006, p. 14).
Therefore by equipping themselves with items, passengers are able to control their journey and the experience of real duration, mediating the negative affects related to waiting and boredom – which are identified as a particular menace to the ill-equipped or under-stimulated passenger (see: Gardner & Abraham, 2007; Bissell, 2009; Noble, 2008).

Indeed, Ettema et al. (2012) suggest that travel-time activity might often simply be an indicator of a boring, negative journey experience, as opposed to the creator of specifically positive journey experiences. This notion is highly important in considering the complexity of the relationship between activity and experience on the bus. Throughout the thesis this issue is returned to, and a discussion is developed which explains the difficulty (or often the impossibility) inherent in attributing specific experiences to specific activities.

Bull (2004a; 2004b, 2005) writes extensively upon personal music players and the increasingly common use of sound to mediate experiences in public space, and explores how the choice of the auditory environment by an individual can allow them to achieve some control of their experiences in the increasingly fractured and active time-schedules of modern society:

‘The iPod user struggles to achieve a level of autonomy over time and place through the creation of a privatised auditory bubble. (...) In this de-routinisation of time lies both the unalloyed pleasure of listening but also the management or control of the user’s thoughts, feelings and observations as they manage both space and time’ (Bull, 2005, p. 344).

Following this notion, Watts and Lyons (2011) have further demonstrated passengers’ abilities to compress and stretch their experiences of travel-time using the methodology of a ‘Travel Remedy Kit’ (TRK). The TRK is a transport intervention designed to encourage passengers to actively engage with travel-time during a journey, and so improve the experience of their journey. The intervention involved interviews with passengers before and after they had their transport journeys ‘remedied’ through the use of the TRK. This resulted in: ‘benefits to the passenger in
the form of increased pleasure, productivity, and the sense of passing time’ (Ibid, p. 116):

‘The toolkit pointed to ways for them [the participants] to manage their travel-time, and in so doing make their journey pass more quickly or slowly (although not by measure of clock time). In essence, the Travel Remedy Kit was a wayfarer’s toolkit. (...) It comprised technologies for engaging in different ways with the world whilst moving; it transported and transformed participants from potentially bored and inactive passengers into equipped and alert wayfarers making a trail from A to B.’ (Ibid, p. 115)

These studies demonstrate that the use of travel-time is able to significantly alter the experience of journey time – and consequently the journey experience. This thesis develops this insight in relation to new empirical data in Chapter VI and applies it specifically to the bus journey, and explains the experientially creative attributes that travel-time use during a bus journey can have for passengers.

Again, these studies have focussed entirely on ethnographic data collected from observations and interviews to explain subjective meanings of travel-time. This thesis holds that the subjective perspective is of crucial importance in explaining the relationship between travel-time activity and journey experiences on the bus. However this perspective alone cannot show the full picture, and it is necessary to not only understand qualitative meanings, but also how representative these meanings are of the bus passenger population in general. This rationale supports the justification of the mixed methodology which is developed fully in Chapter IV, in reference to the existing studies discussed here.

Extending their discussion, Watts and Lyons (2011) have explained that the spatial environment within which carried objects can or cannot be put to use on-the-move is important in considering what time can be put to use for. In relation to these carried items, Watts (2008) and Watts and Lyons (2011) suggest that different ‘configurations’ of train passenger – for example packed/unpacked – may be more or less conducive to different travel-time activities and experiences.
It has been mentioned earlier that the bus environment is one which is hypothesised to offer low opportunity for productivity (see: Lyons and Urry, 2005). This thesis considers the opportunity that the bus environment offers for different experiences of travel-time, and this discussion is developed in Chapter VI. It is suggested that the bus environment might be more suited to experiences of time-out than productivity due to its restricted spatial nature.

However it is also clear that mobile technologies are offering increasing opportunities for activity on-the-move (see: Line et al., 2011; Lyons et al., 2011, Ohmori & Harata, 2008), and furthermore are offering the opportunity for distinct types of activity which would not have been possible before. The primary example of this is in the mobile connectivity offered by emergent ICT technologies, which are enabling passengers to engage virtually in their wider social networks in an increasing number of ways. Ito (2003) notes how mobile technology ‘augments the properties of a particular place, enabling contact and communication that would otherwise not be available’ (p. 3). Initially mobile phone conversations and text messaging allowed the passenger to be virtually present elsewhere, and now the popularity of new smartphone devices means that increasingly passengers are able to access emails, the internet, and social networking websites (see: Line et al., 2011; Lyons et al., 2011) – all of which represent a redefinition of the ways in which the travel experience can be experienced as “social”. There is a lack of specific knowledge as to how these technologies might be influencing travel-time use on the bus.

Jain and Lyons (2008) identify tensions created by the use of mobile technologies within experiences of time-out. They discuss how the increasing encroachment of mobile ICTs into the spaces of public transport heightens the pressure on individuals to be available or virtually present in their wider socio-technical networks, potentially reducing the positive potency of time-out. They note however, that such external pressures have always threatened time-out during a journey – for example through the availability of paper documents for work (Ibid). Jain and Lyons (2008) explain that despite the change that the presence of mobile ICTs has engendered within travel-time, this ‘does not exclude the opportunity the perceive travel time as ‘time-out’” (p. 87). Furthermore, there is evidence that the increasing availability of mobile
technologies adds potential in the context of *time for activity*. Therefore in conclusion, Jain and Lyons (2008) explain that despite the intrusions that mobile ICTs can engender, nonetheless:

‘The travel space combined with the timeframe of the journey provides escape from the pressures of the various fixed location activities with which we are involved on a daily basis. Time out is articulated in multiple ways, but is obviously enjoyed and desired’ (Jain & Lyons, 2008, p. 87).

However, the use of these items can have further negative impacts on the experiences of other passengers – for example through “leakage” from headphones or loud phone conversations (Du Gay *et al.*, 1997). The use of mobile technologies, ICTs, and other carried objects on the bus will often be in close proximity to other passengers, and therefore it is important to consider not only the effects of these items upon the user, but also the wider influences that such items and technologies can have on other passengers and the sociality and affective atmosphere of the environment. This issue is important in developing the discussion in Chapter VI. The following sections of this chapter return to this issue in considering the broader social implications of the use of mobile technologies and other objects on the bus. Discussion now turns to critique other qualitative perspectives on the subjective meaning of travel-time to travellers.

### 3.3.4 Tales of travel-time

Earlier discussion has explained that perceptions of the bus are most commonly created in an episodic manner in which specific (often negative) journey experiences are ‘extrapolated to generalisations about bus travel’ (Guiver, 2007, p. 236). As such it can be seen that passengers’ stories of previous experiences or specific and memorable journeys are an important part of the subjectivity of travel-time on the bus. Where the bus is lacking in specific research into travel-time use in relation to journey experience, nonetheless there are several studies which have explored bus travel from the personal perspective of the “story” – or narrative – of a journey. Within these studies, there are examples of the role that travel-time activity and the carried
items and mobile technologies play in the creation of journey experiences. The different ways in which people articulate or narrate their experiences of travel-time demonstrate the different ways people conceptualise and give meaning to their bus journeys.

Bus travel often forms a part of people’s wider experiences of the communities and places which they inhabit and move through in their everyday lives. Noble (2008) explains how people’s quotidian experiences of travel-time contribute more broadly to how they make sense of the places they inhabit, and the world that passes outside of the bus window. Noble argues that ‘we have a bus that passes through a city, but also a city that passes through the bus’ (2008, p. 4). This demonstrates an intimate relationship between the bus, the passenger, and the place; and emphasises how the passenger within the vehicle remains connected to the places through which they travel, and furthermore are constantly subject to the timetables and schedules of the outside world (see also: Jain, 2009).

Noble (2008) also discusses the importance of the social setting within the bus, and the interactions between different passengers that shape how travel-time is experienced. The social spaces of travel are repeatedly referred to in literatures which explore the subjectivity of journey experience. Bissell notes that:

‘Mobilities are rarely experienced alone or in isolation from other people. (...) To become a passenger always involves a “being with”’ (2010, p. 270).

Discussion of different ‘socialities’ which erupt and fade in the spaces of public transport is returned to later in this chapter, and assists in developing the discussion in Chapter VI (Bissell, 2009). However, here it is useful to introduce research which explain and emphasise that the social space of the bus forms a critical part of both how the bus is perceived and how travel-time is experienced. What is of particular relevance to this thesis is a tension identified in bus travel between the intensely public spaces of the bus, and the desires that many passengers have for personal space within these. Linking to discussion in Chapter II, the desire amongst passengers for personal space on the bus can be related to dominant cultural perceptions of car travel
Bus Tales: Travel-time use, technologies, and journey experiences on the bus

(see: Urry, 2008; Sheller & Urry, 2000), which is seen to epitomise experiences of private space and control during travel (Guiver, 2007).

Mobile places are conceptualised by several authors in relation to how individuals transform them into pockets of private/personal space through their travel-time activities and the carried objects that are used on their journey. The space of the car in particular is seen an ever-present opportunity for customisation: ‘The car is imaged and practiced as a “quasi-private space”, extending the home out to a mobile, personalized protective cocoon’ (Jain & Guiver, 2001, p. 578). The spaces of public transport are conceptualised as spaces of perpetual tension: between their intensely communal nature and the relentless efforts of many passengers to demarcate personal/private space within these public places.

There is a gap in the literature with regards to people’s use of carried items in this way on the bus. Linking back to earlier discussion, one function of carried objects, mobile technologies, and ICTs is to serve as what Goffman (1963) might have described as an ‘involvement shield’ (p. 40) – preventing intrusions into personal space. It is noted that negative travel-time experiences of public transport are often created either by the potential for unwished, intense, or threatening social encounters, or by the sensory intrusion of the other proximate bodies into the personal space of a passenger (Mann & Abraham, 2006; Stradling et al., 2007). In the car these intrusions are rarely an issue, however in the spaces of public transport the vulnerability of the passenger to such negative intrusions in many ways typifies the public nature of these modes (Bissell, 2010).

Bissell (2010) considers how the experience of travelling with other people is more pleasant and genial if the presence of other passengers can be ‘intentionally ignored and blotted out’ (p. 282). Jain (2009) explains that ‘music, reading, texting, and phoning facilitate spatial withdrawal’ (p. 100). There has been little specific focus on such strategies by passengers in the bus environment in relation to their journey experiences. The effects of such strategies of disengagement by passengers suggest a particular sociality of disconnection in close proximity: many people packed close together, and yet separated by their determined use of the items and objects they
carry with them as “shields”. This thesis considers how the carried items by people on the bus might be used to disconnect passengers from one another – potentially in order to ‘blunt’ the negative affects created by enforced proximity (Bissell, 2009) (see: Section 3.4.4, p. 78).

However, despite many passengers’ attempts to disengage from the social spaces of public transport, it is evident that for some passengers the social aspect of the bus experience is one which is distinctly positive and desired (Jain, 2009). In particular, travelling with friends is seen to encourage passengers to socialise in a less inhibited way than they might with strangers (Symes, 2008). Beirão and Cabral (2007) note that:

‘Using public transport for some respondents is also seen as an opportunity to talk to other people on the bus or meet their colleagues who also take the same bus, it “is a time to have fun and laugh”’ (p. 482).

This demonstrates the duplicitous nature of journey experience, which is a recurrent theme in the literature. Strictly defining one factor that contributes to a ‘good’ or a ‘bad’ experience on the bus is not a productive approach, because often one aspect of a bus journey may create a positive experience for one individual yet a negative experience for another, or even a different experience for the same individual at different times:

‘Travel time is simultaneously considered an advantage and disadvantage (...) and is an important reason for mode choice’ (Ibid; see also: Guiver, 2007; Mann & Abraham, 2006).

Again there is a tension in travel-time, between those passengers that desire personal space and those that enjoy a social journey; indeed the same passengers might have different desires for socialising in different contexts. This issue is developed in discussion of the findings in Chapter VI. In relation to this, Stradling et al. (2007) discuss the bus as an ‘exchange space’, and describe the often unspoken negotiations that occur between passengers in creating and maintaining their own piece of private space within this intensely public place:
'For the bus as an exchange space the rules of social exchange including the etiquettes of co-presence apply when ‘having to travel with the general public’ and endure enforced proximity whilst respecting private space’ (2007, p. 291).

The etiquettes of co-presence are the rituals performed by and between passengers to enforce each individual’s own sense of personal space. Nash (1975) argues that the bus is its own ‘community on wheels’. He describes the ‘commuter stance’ on buses, which ‘is highly institutionalised and involves the negotiation of private space or territory within the public domain’ (p. 119). When empty, the public place embodied by the bus loses its meaning. As a public place, the bus is created and mediated by the interactions of the passengers with and within this space, as Jain (2009) notes:

‘An empty bus can flow seamlessly, its carcass ambivalent to place. Passengers in making the mundane journey transform this stage (...) Passengers affect the tempo and flow through talk, music, reading, and getting on and off’ (p. 105).

Therefore it is suggested that the travel-time activities of passengers during their journeys are a constituent element of both the public and private places which passengers inhabit along their journey. Passengers’ various activity routines during travel-time affect the sociality of the place and – in turn – influence the experience of the journey. This links to discussion by Höflich (2005), who has discussed how mobile phone users adapt to the etiquettes of public space, but at the same time how mobile phone use gradually re-configures public places (see also: Aguiléra et al., 2012; Ito, 2003). It is important to understand how emergent ICT technologies are influencing the experience of the mobile spaces of the bus, and the ways in which they may be re-configuring the expectations of passengers with regards to their time spent in this place. There is a current lack of knowledge in this respect.

The etiquettes of co-presence and the sociality of the bus form a part of Jain’s (2009) consideration of travel-time as a ‘performance’. Jain (2009) discusses how the performance of different social interactions during a journey alters the temporality of travel-time:

Performance theory is a specific approach used most often in sociology and human geography, developed from the work of Goffman (for example see: Goffman, 1959, 1963).
'Social interaction (...) clearly removes the passenger into another temporal realm, not necessarily attached to time. (...) Occasionally, talk drags the passenger into an extended journey as observed downstairs in London. Spontaneous conversations and unexpected encounters shift the bus into a stage of social interaction where time is too short and the brief encounters of the short bus hop are left with promises of more’ (p. 101).

In exploring the experience of a journey between Oxford and London on the Oxford Espress coach service, Jain (2011) further considers how collective journey experiences are made by the different roles that passengers play out through their physical and social interactions along a bus journey. Jain (2009) also compares the bus to a stage, passengers to actors, and the carried objects and mobile technologies available on a journey as the props. From the perspective of a performance it is the passengers themselves that give a bus journey meaning and transform the bus from an empty, ambivalent carcass:

‘The time-space of the bus is a hub of flows; some intersecting, some running their own course. How the traveller travels – as individual, social group, or as tourist – changes the experience of the bus space, how it is occupied and used’ (Ibid, p. 105).

Jain (2009) discusses ‘activity time’ on the bus. Her analyses of three ‘scenes’ on different bus journeys describe some of the ways in which people use their travel-time. Jain (2009) observes passengers socialising with each other, and also socialising with others who aren’t present on the bus through phone-calls and texts. A mum watches her son playing a game on his Game Boy. Many passengers are reading (novels and newspapers) whilst others snooze, drink coffee, and gaze out of the window. Jain (2009) notes the inescapable presence of headphones, connected to personal music players – and gives specific mention to the iPods and Walkmans, whose headphones and cables festoon the younger generation on their way to school (Ibid).

Thus, the travel-time activities and the carried objects that passengers use to facilitate this time are linked to the collective performance of the journey, and consequently to individual passengers’ experiences of the bus. Where Jain’s (2009; 2011) ethnographic
explorations of travel-time on the bus provide a further insight into the routines and activities of passengers on the bus, the analysis is similar to much of the qualitative research into travel-time which precedes it. Whilst it provides greater depth it does not significantly move the travel-time debate forward or generate a great deal of new knowledge. This thesis holds that what is necessary is a novel investigation of travel-time activity and the specific ways in which it is related to subjective journey experiences on the bus, explored from a qualitative perspective and then tested more widely amongst the bus user population using a quantitative approach.

Research by Jungnickel (2003) provides further examples of travel-time experiences. Her data was collected through a website named ‘73 Urban Journeys’, which allows users of the (now decommissioned) number 73 Routemaster11 bus in London to post their ‘stories’ of the service onto the blog12. The study is not a specific exploration of travel-time use in relation to journey experience on the bus, however travel-time activity forms a key part of the narratives of several of the bus stories posted to the site, and it is apparent that passengers are engaging in a range of different activities on-the-move. Evident in people’s descriptions of their travel-time are allusions to the mediating effects of a particular activity or time use – which are able to create positive and desirable journey experiences, even when the travel-time activity is not strictly “active”:

‘The thing which I like about travelling on buses, is the thing I like about all forms of public transport: the opportunity it affords to switch off. I can board the bus, select a seat, then sit and stare while my mind wanders off. And because time spent travelling is such a ‘non’ time, spent in such a ‘non’ place, the feeling of wasting time rarely hangs heavy upon me. The daydreamers\textsuperscript{sic} safe-haven’ (Jungnickel, 2003).

11The ‘Routemaster’ design of bus is arguably the quintessential London bus, and as such these (now decommissioned) models have built something of a cult following online (for example see: Routemaster Bus, 2011). Many Routemasters can still be seen on the streets of London giving sightseeing tours or hosting private “mobile parties”.

12The 73 Urban Journeys site has additional relevance to this project as the blog was constructed as part of an academic research project, titled: Urban Mobilities; Locating Consumption of Ubiquitous Content. The blog method of data collection for the research project was ‘designed to explore, experience and capture textual, visual and sensual narratives of the mobile London urban experience’ (Jungnickel, 2003). The blog research methodology is discussed in Chapter IV in relation to the similar methodological approach taken in this thesis in its use of an online Social Networking Site – Facebook – for the collection of data.
Such stories of travel-time on the bus hint at the ways in which travel-time activities are entwined into the experience of the journey, and illustrate that the ways in which time is spent on the bus can give meaning to travel-time; which furthermore can be of potential positive benefit for the passenger.

Throughout this chapter, the theoretical perspective of travel-time as productivity time has been critiqued, particularly in relation to the spaces of the bus, in which the literatures suggest there is particularly low potential for productive travel-time activity (Lyons & Urry, 2005; Watts & Lyons, 2011). The literatures in this section assist in developing the discussion in this thesis of travel-time experiences on the bus, as they present perspectives which do not focus only on productivity during travel-time, but rather explore the subjective meanings of the journey experience and the activities that are conducted within this. Throughout the discussion in this section, it has been explained that travel-time activities and the carried objects that people have with them on-the-move can be important in giving such meaning to passengers’ experiences of travel-time on the bus. However, at the same time this alternate theoretical approach of exploring the subjectivity and contextuality of the journey has been identified as also not providing the wider picture. In evolving these perspectives in relation to new empirical data, this thesis develops a discussion on travel-time activities of bus passengers which takes a broad view of the subjectivity of the journey and encompasses different meanings of travel-time – as well as different ways of collecting data – which are sensitive to the contextual imperatives of a bus journey.

To this point this chapter has discussed existing research which presents different perspectives on how travel-times are constructed, and the different ways in which travel-time activities give meaning to the journey experience on public transport. This has developed different ways of understanding the meanings of travel-time, however a question remains as to what the actual mental and corporeal experience of these different types of travel-time is for passengers. In this sense, the travel-time use literatures are supported more widely by discourses which explore the specific nature of different journey experiences, and employ the psychological concept of “affect” in understanding how these different meanings and uses of travel-time are bodily and mentally experienced and known by the traveller.
3.4 Experiences of travel-time

This section critiques theoretical approaches to articulating the experience of travel. Where passengers’ journey experiences are the subject of the academic literature, the psychological theory of ‘affect’\(^{13}\) is regularly employed as a framework through which to explain the primary stage of the (pre)cognitive processes by which journey experiences manifest. Bissell’s (2007; 2009; 2010) research on rail passengers identifies the underlying affective influences on passengers which form the basis of journey experiences, and his theoretical perspective is central to this.

3.4.1 Affect

Affect is a psychological term which forms the basis of a conceptual framework for the understanding of human emotion. Russell (2003, p. 148) defines affect as: ‘that neurophysiological state consciously accessible as the simplest raw (nonreflective) feelings evident in moods and emotions’. Affect is – in essence if not detail – a simple concept which provides the building blocks for an understanding of how emotion is experienced. Affect is likened to the more common terms mood and feeling. Figure 5 presents a model of affect. Affect is created from a combination of two dimensions: the horizontal axis represents the pleasure/displeasure dimension, with the extremes of these experiences at either end of this scale; the vertical axis denotes the concurrent levels of activation which a person is experiencing, with the dimension ranging from complete unconsciousness (sleep) through to frenetic excitement (Russell, 2003): ‘At a given moment, the conscious experience (the raw feeling) is a single integrated blend of two dimensions, hence discernable as a single point’ (Ibid, p. 148).

\(^{13}\) Whilst very vaguely synonymous with the more usual form of the word, ‘affect’ in the sense used here is a technical noun, largely distinct in meaning and also in pronunciation. ‘Affect’ as it is used in this discussion is pronounced with emphasis on the ‘a’ – as opposed to emphasis on the ‘f’ as is most common in everyday parlance.
Affect can be viewed as the emotive precursor to the cognitive processing of experiences, feelings, and moods. It is the basal state which is the foundation of a person’s experience of the moment. Affect is continually present; during a bus journey a person’s affective state is the precursor to – and a core component of – their conscious understanding of travel-time experiences. A person’s affective state is continually influenced by external stimuli, and affect is created by every stimulus experienced at a given time. At the physiological level, affect is influenced by a person’s genetic affective disposition, and also by temporary internal causes such as hormones and daily bodily rhythms, among many others (Ibid). These form the ‘internal baseline’ of affect upon which external causal stimuli work to create the overall core affective state. External causes can be singular, and powerful enough to overwhelm all other causes (for example an aggressive incident a person becomes involved in on a bus journey); however the majority of changes occur as a result of cumulative events which are lower in intensity, and which work together to create an affective state (for example the combined stresses of a week at work) (Ibid).
A bus passenger is constantly subjected to affective influences during their travel-time, which shape their affective state. This thesis holds that affective influences of the bus environment upon passengers are a key component of the journey experience. Discussion in the previous section has highlighted that the bus is a highly public space in which many different people are brought together and must often negotiate personal space (See: Noble, 2008; Stradling, 2007; Nash, 1975). Discussion in this section explores the affective influences of the social space of the bus, explaining that the bus is a place in which people frequently encounter strong affective influences from their surroundings – particularly in the form of social interaction with other passengers. Therefore bus passengers can be seen to be vulnerable to intense affective influences from the environment and the passengers around them, and susceptible to strong experiences of affect – both negative and positive. These affects predispose the passenger to different journey experiences (for example: relaxation, boredom, or stress), dependent upon the nature of the affect.

It is not within the remit of this thesis to continue into a detailed critique of literature related to the causal idiosyncrasies of different affective states. The approach taken in this thesis is a broader exploration of literature which describes affective states relevant to journey experience on the bus, which is critiqued in relation to travel-time literatures. Discussion now turns to consider the creation of different socialities – or ‘affective atmospheres’ (McCormack, 2008) – on the bus, and how these can be seen to influence passengers’ experiences of a journey.

3.4.2 Sociality

Discussions by Bissell (2007; 2009; 2010) present research on the different ‘socialities’ that may emerge at different points on a train journey. Bissell (2009) describes socialities as differing ‘forms of being-with-others’ (p. 66) – synonymous with collectivity – or simply the social interaction and atmosphere created in the interactions between proximate bodies. It is evident that the bus has its own specific
socialities that may be more or less conducive to different types of activity. As Bissell notes:

‘These forms of sociality that emerge whilst on the move [are] important because they influence the particular type of atmosphere that is produced. Consequently the type of sociality that results impacts on what travel-time can be put to use for’ (Bissell, 2009, p. 66).

Therefore the physical configuration of the bus combined with the particular arrangement and relations between the passengers inside creates a specific kind of ‘affective atmosphere’ (McCormack, 2008), which might be more or less conducive to certain travel-time activities and experiences. Different modes of transport are not only unique in their physical form and layout, but also in the different type of sociality – or relationship – between the passengers themselves and also the mode on which they are travelling.

The affective atmosphere within the First Class carriage on a train for example often facilitates work. Affective communication between passengers within this space – in addition to an individual’s own propensity for working – might encourage working practices during a journey. Bissell describes the experience of a participant in the First Class carriage during a journey, and explains that the busy working practices of other passengers in the carriage facilitate his own practices:

‘This is not conscious, reflective emulation of what others are doing, but rather that the practices and demeanour of other proximate passengers, together with the quietness of the carriage, generate an affective atmosphere that effectively primes him to act in a certain way’ (2010, p. 274).

Therefore similarly in the context of bus travel, the actions and demeanour of passengers on the bus structure and define the potential for activity in others. The bus is – in most respects – a starkly different environment to the First Class carriage of a train, and indeed here there is an important distinction between the bus experience and the train experience more generally. This demonstrates that Bissell’s (2009; 2010) discourses of sociality are applicable to this thesis strongly in theory, and yet the
specific affective atmospheres created on bus travel will have their own very distinct incarnations. To explain; at the broadest “environmental” level on a train, there are a wider set of carriage environments available to the traveller, which they furthermore have a choice in selecting. There are First Class carriages, Standard Class carriages, Quiet Coaches, Family Carriages, sleeper cars, restaurant cars, and – more recently – Entertainment Coaches\textsuperscript{14} on trains. Therefore there can be several different socialities on the same train, and a passenger is able to reserve or choose a place in their desired environment, and furthermore (when there are seats available) can move between these. Bus passengers do not have such choice. Whilst there are many different types of bus and bus journey – each perhaps influencing a particular sociality – there is usually little heterogeneity of environment within the bus interior. There are no First Class zones, designated quiet spaces, or entertainment areas\textsuperscript{15}. The interior of a bus is most often a homogenised and open space in which all passengers are together in the same space and subject to the same “rules”. Therefore the particular socialities of the bus might have their foundations in the distinctly egalitarian nature of this place, and any affective atmosphere which emerges along a journey must be considered in relation to this.

The public spaces of the bus and the sense of personal space and privacy which these engender are unique. There is only usually a loose delineation of different spaces within a bus, and an affective atmosphere is therefore freer to spread throughout the entire place. Within a particular bus there is still some scope for diverse socialities,

\textsuperscript{14} First Great Western is an example of a UK train operator that has introduced such ‘Entertainment Coaches’ on its high-speed fleet. In a similar fashion to the entertainment now provided as standard on most long-haul flights, train passengers can – for a premium – have access to a digital entertainment and information system during their journey (First Great Western, 2011).

\textsuperscript{15} Where there are few examples of buses in which there are designated entertainment areas (distinct from the rest of the bus) nonetheless there are examples of buses in which the entire environment is designed to facilitate travel-time use, working, and entertainment in comfort. The ‘Google Bus’ is one such example. Reserved for employees of Google Inc., Google Buses are enhanced with wireless internet access and leather seats, and pets are allowed to travel on board. In descriptions of the Google Bus it is evident that a particular affective atmosphere is being created, with its roots in the bespoke nature of this bus environment: ‘Inside, most riders appeared to abide by the shuttle’s etiquette rules. Cellphone conversations are allowed if they are work-related and sotto voce. But loud personal calls are definitely out. In fact, except for a couple snuggled together, no one sat on adjacent seats. Many took out iPods or laptops and worked, surfed the Web or watched videos. “People tend to be quiet and respectful that this is people’s downtime,” said Diana Alberghini, a 33-year-old program manager’ (Helft [New York Times], 2007).
influenced by the differences in environment within the microcosms which comprise a bus’s interior – for example the top and bottom deck divide in double-deckers, or the phenomenon of the ‘back-of-bus brigade’ (see: Noble, 2008, p. 103). Jain (2011) has explained the experience of coach travel as having a different atmosphere to that of the local bus, with the less frequent stops and less movement of passengers into and out of the space. However, for the most part the bus represents an open and relatively “exposed” space, in which the layout does little to mediate visual and aural intrusions into personal space. Bissell (2010) terms the transmission and communication of affects as ‘contagion’ and it is clear that in the context of the bus, such affects have the potential to be highly contagious. This means that in the context of bus travel, all passengers on the bus are susceptible to a particularly negative affective atmosphere, and similarly, have the potential to be positively affected by a pleasant sociality within the bus. Affective atmospheres and the socialities created during the bus journey are of particular relevance in this thesis, and the discussion of the findings in Chapter VI considers how the travel-time activities of passengers and the resultant social relations along a journey can be seen to influence these.

Bissell’s (2007; 2009; 2010) ideas of sociality underpin literatures which consider how the spaces of transport – the platforms, waiting rooms, cars, buses, trains, and so on – can be conceptualised in relation to contemporary discourses of space and place. His concepts of the way in which individual passengers collectively contribute to the creation and mediation of a group experience are important two ways: first in explaining how the intensely communal nature of the bus moulds and shapes the passengers’ potential for travel-time activity, and also their interactions with other passengers and the bus environment itself; and second in considering what forms of public space and place the bus embodies for its passengers. The following section discusses concepts which have explored what makes an ‘ideal’ bus journey for passengers who spend time in these mobile public places, focussing upon desires for affective comfort and ‘tranquillity’ during travel-time.
3.4.3 ‘Ideal’ bus journey experiences

This section explores examples of positive affective states and the resultant journey experiences on the bus. In this thesis the concept of a “tranquil” experience is central to understanding the bus experience, and is a foundation upon which discussion of the subjectivity of travel-time activity is be developed in following chapters of this thesis. This section explores what such tranquility means.

Throughout this chapter it has been identified that travel-time is highly contextual and subjective, thus is difficult in defining specific factors, activities, or aspects of bus travel which create a good or bad experiences for everyone. The question therefore, is how to conceptualise positive experiences of travel-time on the bus from a subjective perspective. The discussion in this chapter of the multifarious ways in which travel-time is spent and experienced suggests that a strict, uniform, or consistent conceptualisation or description of how individuals experience their time on the bus – and how this relates to the ways in which they spend this travel-time – is problematic if not impossible. The alternate route is to consider that whilst positive journey experience has the potential to be highly changeable in relation to the context in which it is created on the bus (time, day, mood, person, trip purpose, etc...), it nonetheless has consistency in terms of individuals’ desires for it – or rather, it has consistency in individuals’ desires for a particular type of positive experience.

Stradling et al. (2007) provide an experiential account of what makes both an unsatisfactory and an ‘ideal’ bus journey from a passenger’s perspective. The conceptual framework of core affect (Figure 5) forms the basis of Stradling et al.’s (2007) description of the ideal bus journey, and Stradling et al. (2007) primarily discuss the notion in relation to passengers’ desires for a pleasant affect (see also: Russell, 2003).

A key social and affective concern identified in Stradling et al.’s (2007) research is that of tranquillity. In their research Stradling et al. (2007) assert that an ideal urban bus journey is one in which the individual is affectively comfortable in their surroundings (Ibid). In this thesis, this desired state is referred to as tranquillity, and is not restricted
in meaning here to the word’s most general connotation as purely a feeling of calm/quiet. Whilst the predominant desire amongst passengers is for a relaxing, switched-off, calm journey, others desire a more social, activated experience (see also: Mann & Abraham, 2006; Beirão & Cabral, 2007). Both desires however can be argued to provide the same positive affect within the bus (Stradling et al.; 2007). Therefore ‘tranquillity’ is utilised as the label by which to describe this overarching positive affective state. This view echoes that of Lyons et al. (2008) where they discuss underlying desires for tranquil modes of travel. Mann and Abraham similarly assert that ‘a comfortable and stress-free journey was seen as the basic requirement of a good mode of transport’ (2006, p. 163 – emphasis added).

Stradling et al. (2007) explain that for many passengers, the ideal bus journey is one in which they are able to maintain an affectively pleasant state of mind. For most individuals, the desire is to be in the pleasant/deactivated quadrant of Russell’s (2003) model (see: Figure 5):

‘In indicating what they liked about bus travel in Edinburgh, a number of respondents indicated a state of mind that is in contradistinction to the annoyances and unwanted intrusions [during a bus journey] (...) and may be the reverie that unwanted intrusions intrude on. This state of mind appears to involve being transported while switched off. This experience for some individuals is smooth, tranquil, undisturbed, relaxed, absorbed, engaged with the moment yet ‘elsewhere’, and is pleasurable without being ecstatic’ (Stradling et al., 2007, p. 290).

For other users however, this ideal tranquil experience is a more activated or social one, with some users listing such desires as a radio and the ‘opportunity to engage in social interactions with fellow passengers – social exchange – whether with friends, acquaintances, or co-present strangers’ (Stradling et al., 2007, p. 291).

With particular relevance to this thesis, Stradling et al. (2007) utilised a mixed methodology to explore the ‘ideal’ bus journey. Their study combined quantitative and qualitative data to produce a rich account of passengers’ journey experiences, which were also explored amongst a large sample of bus users (n > 1000). The majority of
their findings however were structured around an exploration of people’s dislikes – or negative experiences – of the bus. Earlier discussion has explained that travel-time activity is inextricably woven into the experience of public transport, and this thesis holds that it is important to fully explore the relationship that travel-time activity has with both positive and negative journey experiences. The mixed-methodology followed in this thesis is designed to capture this (see: Section 4.1, p. 87), and develops this notion of the ideal journey experience in greater depth.

Therefore – quite simply – Stradling et al. (2007) assert that bus passengers have a general desire for the underlying affective experience of the journey to be pleasant, and this is the key component of an ‘ideal’ bus journey. However, it has been discussed earlier that there is difficulty – if not impossibility – in strictly defining one travel-time activity or aspect of a bus journey which is consistently linked to a positive or negative experience for all passengers (see: Guiver, 2007; Mann & Abraham, 2006; Beirão & Cabral, 2007). Stradling et al.’s (2007) findings are significant because they demonstrate a strong and elementary commonality between passengers within their more complex and varied journey experiences – resultant from the subjective cognitive interpretation of their affective state. The position that this thesis takes is to use Stradling et al.’s (2007) notion of the ideal bus journey to describe the affective state most desirable to passengers, tranquillity. This state of tranquillity is then used as a point of reference against which to explore the travel-time activities and experiences of passengers, and how these can be explained as causal factors within the creation of an ideal bus journey experience.

Here, the notion of tranquillity links to discussion of ‘comfort’ by Bissell (2008). He describes comfort – not as a state of pleasure derived from rest, soft-furnishings, or any other material affordance with which it is normally associated in everyday language – but rather as a subjective experiential point somewhere between the extremes of activity and inactivity. It is a balance between the extremes of affectual intensity in Russell’s (2003) model. Bissell (2008) uses the analogous example of a chair to illustrate the point; noting that no matter how soft and luxurious a chair might be, if you sit still in it for too long then comfort will eventually give way to discomfort, and
your position must be adjusted to redress this (Ibid). In other words, comfort (both mental and physical) is a state that must be actively maintained.

Harvey et al. (2011) illustrate Bissell’s (2008) argument in the context of car travel. Harvey et al. (2011) describe the adverse affects which can result from a change in a driver’s affective state. Most importantly in the context of this thesis, they note that the change in state occurs not due to a specific experience of incident during a trip, but rather that a persistent experience of low arousal transforms relaxation into boredom: ‘in a low-arousal situation, a pleasant driving sensation such as relaxation becomes unpleasant or unsatisfying’ (Ibid, p. 55).

This idea of the active maintenance of experience suggested by Bissell’s (2007) conceptualisation of comfort links back to earlier discussion on the duplicity of journey experience, where existing research suggests that a different experience of a bus ride can be created by encountering the same aspects of the bus environment or enacting the same travel-time actions, but at different times or in different contexts (Guiver, 2007; Mann & Abraham, 2006; Beirão & Cabral, 2007). What this link implies then, is that comfort on the bus is an inherently unstable state that cannot be reliably relied upon to merely come forth, even on routine journeys. It is something that is crafted, in the same way as Watts (2008) talks about the train traveller and their crafting of time during a train journey. The ideal journey experience therefore, is unfortunately not necessarily the default journey experience; it is one which must be created and maintained both physically and psychologically. This thesis explores the creation and maintenance of positive journey experiences through the travel-time activities of passengers, and utilises the notion of an ideal bus journey experienced as tranquillity and comfort as a theoretical point of reference when exploring the wealth of variation in people’s travel-time activity.

This section has explained that research into the subjective experiences of passengers show the bus journey to be complex and duplicitous, and deny a simple explanation of journey experiences and passenger satisfaction; however studies have demonstrated consistency in passengers’ desires for a tranquil and affectively comfortable ride. It has been noted that a comfortable experience on the bus may not be a default – or
even at all consistent – experience. The next section explains the counter-point to such ideal journey experiences. Earlier discussion in this chapter and in Chapter I has explained that often the bus journey experience is one which is less than ideal, and explaining the negative affects of a journey is important in developing the discussion of the findings in Chapter VI in relation to how travel-time activity is positioned relative to negative journey experiences on the bus.

3.4.4 Negative affects

As has been explained above, an ideal journey experience of affective comfort is something which must often be created by the passenger and actively maintained. Thus, travellers are constantly at threat of a journey experience becoming affectively uncomfortable – and thus unpleasant. Bissell (2010) explains that at the collective level, the spaces and temporalities of public transport provide the potential for negative socialities. This connects in to earlier discussion of how the travel-time activities of passengers within the space and the different items that they use can help to attenuate the intrusions and distractions that typify the experience of bus travel. However, the tension has been identified between passengers’ attempts to blunt the negative affects they experience, and the effects that this has on the other passengers within the space.

Negative affective atmospheres experienced between people sharing these public spaces can have a particularly detrimental impact on the journey experience of public transport passengers. Bissell discusses the eruption of a negative affective atmosphere in relation to an unexpected delay along a journey:

‘As the itinerant predictability of travel time gives way to an erratic and faltering trickle of information from the train staff, the emergent condition of uncertainty gives rise to a series of negative affects associated with frustration and annoyance’ (Ibid, p. 275).
The bus epitomises vulnerability to such an eruption of negative affects. The bus is regularly conceptualised and discussed in relation to the uncertainty of the journey (see: Guiver, 2007; Stradling et al., 2007). Buses most often travel relatively short routes with frequent stops, breaking the continuity and flow of the journey experience, and increasing the potential for negative affects to condense.

It is suggested that the two principal negative affects which public transport passengers are vulnerable to are stress (unpleasantly high arousal), and boredom (unpleasantly low arousal). In describing stress during travel-time, Bissell (2010) relates such a negative affective experience to the strains engendered by prolonged, routine, enforced proximity to other passengers – compounding with the frustration and uncertainty caused by a late bus or an unreliable service. Like the bus, ‘the train carriage is an intense coming together of people and things in close proximity. (…) The experience of being with others in spaces of public transport often generates particularly uncongenial relations between passengers’ (Ibid, p. 276-277). Negative affective atmospheres have the potential to be compounded by habit and routine, which are inherent aspects of some journeys, particularly the commute: ‘Put simply, the fatigued body might have a lower threshold to be irritated’ (Ibid, p. 278). Bus passengers have the same capacity to be fatigued as train travellers, and to experience a negative affective atmosphere with strangers on the bus (Stradling et al., 2007). Particularly on the bus, certain groups of passengers are seen to invoke such eruptions of negativity; passengers travelling on routine journeys with others whom they perceive as different, threatening, or merely irritating might develop a misanthropic attitude to their fellow travellers. Not, however, merely out of grievance, but rather as a tool for coping with the stress of the situation (Bissell, 2010).

Specific incidents of behaviour which are perceived as ‘unsocial’ can reveal these ‘misanthropic dispositions’. Disruptively loud mobile phone conversations, a particularly mordacious piece of food, or unwanted intrusions into personal space are among many of the issues which can cause negative affects to form (Noble, 2008; Bissell, 2010). Small and mundane acts become amplified in public: ‘nail clipping, sniffing, sighing, coughing, tapping fingers on the table; through to the bare presence of other people’ (Bissell, 2010, p. 278; see: Guiver, 2007). The affective ripples do not
dissipate when these intrusions cease, and they linger and reinforce as they pass back and forth throughout the passengers. Such collective annoyances serve to splinter the passengers as a collective, and set them apart as individuals. This distances people within the space, and reduces the potential for a more positive, uplifted sociality – such as was described as erupting on a Friday night journey, when these small annoyances are subsumed by the promise of the destination and the evening-to-come (Ibid).

In discussing the counterpoint to stress, experiences of boredom on a journey can be seen to form similarly strong negative affective experiences. Boredom is explained as an affective state in which a person experiences unpleasantly low arousal, and is connected to mundanity and repetition. The bus journey is often a space of repetition and routine. For the commute, the weekly shop, the school trip and more, the bus is used regularly by many passengers (see: DfT, 2010b), and this mundane ‘everydayness’ of bus travel is captured by Jain (2009) and Noble (2008) in their analyses of bus travel. Boredom is associated with routine, monotonous, and banal experiences, and over time these lead to progressively lower arousal (Mikulas & Vodanovich, 1993; Conrad, 1997; Anderson, 2004; Harvey et al., 2011). In relation to notions of tranquillity and affective comfort discussed in the previous section, Jain (2011) explains that:

‘A comfortable journey suggests a journey where time does not lag and boredom does not overpower.’ (p. 1021)

In a further sense, the bus embodies disconnection not only between the inhabitants inside, but also between these passengers and the world around them as they move through it. During the journey people are restricted in their ability to connect with the place that they are in, and are further restricted by the bus itself in the activities which they can engage in during this time. This links to earlier discussion on the potential that mobile ICTs have in connecting passengers virtually to their wider social networks. In doing so, it is suggested that people’s use of these items might be related to passengers’ efforts to combat experiences of boredom through reducing such experiences of disconnection.
This section relates to the theme running throughout this chapter of the contextual and duplicitous nature of travel-time experience. The negative affects of stress and boredom discussed above are subjective responses to stimuli that other passengers might experience differently; or even the same passengers experience differently at other times and in other contexts. Furthermore it has been explained that the items that people carry with them – and in particular emergent ICTs – are potentially enabling passengers to mediate negative affects of stress and boredom through allowing a passenger to disconnect from the social spaces of the bus, to engage in an ever-wider range of activities on-the-move, and furthermore to communicate virtually with wider social networks. Due to the lack of specific research into travel-time activity and the use of such mobile technologies on the bus, new research has been carried out for this thesis to – in part – explore the potential for travel-time use and activity to mediate the effects of negative affective experiences on the bus, and furthermore in the creation of positive journey experiences on the bus. The results of this are discussed in Chapter VI.
3.5 Summary discussion and research questions

There is a stated policy need to make bus travel more attractive, with the aim of increasing mode share of the bus, but there is a lack of understanding as to the role of non-instrumental factors such as travel-time activity in the creation of positive journey experiences on the bus. The critique of the literature has explained how there is a need to develop a novel methodology to expand upon existing research, in order to move the travel-time debate forwards and generate new knowledge about the travel-time activities and journey experiences on the bus. Over the course of the literature review, three specific gaps in existing knowledge have been identified. With reference to these gaps, the overarching aims presented in Chapter I have been developed into the set of specific research questions that this thesis addresses.

Firstly, from the discussion presented in this chapter (building on that in Chapter II), it is clear that there is a missing link between research which has demonstrated that travel-time activity has the potential to improve journey experiences for public transport passengers (see: Watts & Lyons, 2011; Watts, 2008; Jain & Lyons, 2008) and research which has explored the journey experiences of bus passengers (see: Stradling et al., 2007; Guiver, 2007). Existing research which considers travel-time activity on the train has found it to be of positive benefit where travel-time is used as productivity time (Lyons & Urry, 2005; Lyons et al., 2007; Holley et al., 2008; Lyons et al., 2011). The role of productive travel-time has been explained largely from a quantitative perspective. However, research by Ettema et al. (2012) challenges the implicit notion that productivity during travel-time leads to a more comfortable affective experience of the journey (see: Stradling et al., 2007; Bissell, 2010). It is also suggested that the bus is a mode which is not well suited to productive uses of travel-time (Lyons & Urry, 2005); but that rather it is a place in which notions of time-out, transition time, and personal time-for might be most relevant (see: Jain & Lyons, 2008; Noble, 2008; Watts & Lyons, 2011). Thus this thesis follows the rationale of not focussing only on productivity, but rather exploring the subjectivity of travel-time and the bus journey experience, and questions also the experiential role of the “non-productive” “anti-activities” in attending to the gap in the literature discussed above.
Secondly, there is a gap in knowledge concerning the ways in which travel-time activities on the bus give meaning to passengers’ experiences of the journey. In particular, there has been little focus on how the travel-time “tools” – the carried objects, mobile technologies, and ICTs – are potentially enabling bus passengers to conduct different activities during travel-time. Research on the train has shown that travellers are able to shape their experiences of the journey through travel-time activities, and furthermore are able to use the mobile technologies and ICTs that they carry with them, and there is a lack of specific research into how bus passengers might be crafting their experiences of travel-time in the similar ways for positive benefit. Research has shown that the emergence of powerful new mobile ICT technologies is demanding a re-consideration of what is possible on-the-move. There are several examples of research that has considered these new technologies in relation to transport more generally, however there is a gap in knowledge as to their specific effects on the journey experiences of bus passengers, and how these increasingly ubiquitous devices are changing the ways in which passengers interact with and within the bus. These new technologies and ICTs are already being seen to re-configure the spaces and etiquettes of public transport (see: Line et al., 2011; Bull, 2005; Du Gay, et al., 1997), and there is a gap in the knowledge as to how this is occurring specifically in the context of bus travel.

Finally, there is a gap in knowledge in terms of specific research into subjectivity of travel-time on the bus, and how it is enacted and experienced differently by different individuals and groups. Throughout the discussion, a running theme has been that of the contextual nature of journey experience and travel-time use on the bus. Jain and Lyons (2008, p. 88) have noted that ‘travel time is enacted and experienced in multiple ways and is context driven’. The same travel-time activities conducted by different passengers – or even the same passengers at different times – can create very different journey experiences (see: Mann & Abraham, 2006; Beirão & Cabral, 2007). No two bus journeys are the same, and this thesis presents a new discussion on the subjectivity of travel-time activity, and explores the variation in desires and experiences of different individuals and groups on the bus.
Following this, the specific research questions for this thesis have been developed from the broader thesis aims outlined in Chapter I, and these are presented below.

### 3.5.1 Research questions

The research questions have been constructed from the thesis aims presented in Section 1.1.1 and the critique of the literature in the review in Chapters I – III. The research questions inform the methodology in Chapter IV, and they form the foundation of the discussion and analysis in Chapters V through VII. The key questions addressed in this thesis are:

1. (a): How do passengers use their travel-time during the bus journey?

1. (b): What influences the types of travel-time activity that are conducted on the bus?

2. (a): What influence does the use of travel-time have on passengers’ experiences and perceptions of bus travel?

2. (b): How important are mobile technologies and other carried objects in facilitating activity and creating different experiences of travel-time on the bus?

3: What explanations are there for the diversity of journey experiences between different individuals and/or groups?

Questions 1a and 1b aim to establish how suited the bus is to different types of travel-time activity, and demand a consideration of several different aspects of the bus environment: the physical layout of the bus, the sociality within the bus (i.e. the
interactions and emergent affective atmospheres between passengers), and the specifics of a service/route (i.e. patronage levels and schedule).

Questions 2a and 2b seek to explain the reasons that people have for engaging in travel-time activity on the bus, through an analysis of the relationship between travel-time activity and the creation of journey experiences, considering the role that mobile technologies and other carried objects play in travel-time activity.

Finally, Question 3 explores the difference in passenger experiences, both at the individual and the group level. This question addresses the issue of subjectivity in passengers’ experiences of travel-time, and explores the contextual nature of journey experience.
4.0 Methodology – Issues, design, and execution

“The research process can be likened to a series of journeys, often on an unknown route, and sometimes on a runaway train, yet neatly reported as a linear sequential route” (Jain, 2003)

Chapter IV presents the rationale for the methodology design for the collection of empirical data in this thesis. This chapter provides a critique of the methods available to the researcher, identifying the most appropriate to the delivery of the research questions.

The research questions addressed in this thesis have been presented at the close of the previous chapter. This chapter explains how the research questions have dictated the form of the research methodology. First, this chapter presents the overarching research strategy, including a discussion of ontological and epistemological issues, an explanation of the mixed-methods approach adopted in this thesis, and a strategic summary of the three phases of empirical data collection. Following this, discussion moves through the three phases of data collection creating a methodological commentary that traces the development of the ideas and themes of this thesis, as the successive stages of data collection honed the broad exploratory approach of Phase 1 into the targeted focus of data collection in Phase 3.
4.1 Research strategy

As discussed, this thesis is concerned with exploring journey experiences on the bus in relation to the travel-time activities of passengers, and their use of mobile technologies, ICTs, and other carried objects on-the-move. At the current time, analyses of personal travel-time spent on the bus do not fully capture the subjective value that travel-time can hold for individuals in relation to the role that travel-time activity plays in the creation of journey experiences, and how these relate to the bus user population at a more general level. There is a strong argument that the experiential aspects of travel-time activity on the bus are currently under-researched, and further that the personal experience of travel by bus is misrepresented or misunderstood by academics, transport policymakers, and bus industry stakeholders.

The following sections discuss the theoretical approach adopted in this thesis, and present the research strategy which has been designed to collect the empirical data necessary to address the research questions.

4.1.1 Theoretical and methodological rationale

There is a wealth of literature which considers the differing metaphysical positions that underpin research. Transport studies have traditionally been allied to the positivist approaches developed in the physical sciences, conceptualising structures of mobility as systems which can be measured objectively. However, the focus in this thesis on exploring individuals’ travel-time experiences is inherently subjective in nature, and embedded in the individual meaning that people give to their journeys; furthermore, many of the ideas and theories introduced in the literature review are based in the social sciences, in which a range of different philosophical perspectives have been developed. Theoretical literatures which explore the nature of the knowledge that is generated by the research process have explained that the values held by the researcher (and the value judgements that researchers make) are deeply embedded in the methods chosen, the questions that are asked, and thus also in the knowledge that is generated (see: Hammersley, 1999; Shipman, 1997; May, 2001; Nagel, 1961;
Bus Tales: Travel-time use, technologies, and journey experiences on the bus

Flyvbjerg, 2001). This thesis recognises the role of the researcher in generating findings through their intellectual engagement with the data, and hence their influence upon the knowledge that is produced. Halfpenny (2001) asserts that the idea of true objectivity in any research is a fallacy, and Flyvbjerg (2001) has questioned whether the pursuit of objectivity is even desirable in the context of social research – which by its nature explores societies, people, and their differing values and norms. Hammersley (1995) argues that it is necessary to explicitly engage with the values and assumptions that underpin the research questions and the methodology, and therefore allow the context within which the research is situated to inform the meanings of the knowledge that is generated. Below, the metaphysical paradigm within which this research is set is discussed.

Both ontologically and epistemologically this research displays a multi-faceted quality, resultant from concepts of “the bus” and “a bus service” embodying a diverse range of meanings and forms. As discussed in chapters I, II, and III, the bus is a physical object and piece of infrastructure, a facilitator, a service, a public space, a part of a system, an experience, and much more beyond. A bus service means different things to different individuals and groups, and physically embodies a different presence in different areas and places.

As such, this research is rooted in a critical realist perspective. This represents a philosophical position between the polar extremes of a pure positivist approach and a pure constructivist (or interpretivist) position, and in some ways bridges the divide between the two. A critical realist position accepts that there is an independent reality that exists outside of subjective interpretation, but also that there is a distinction between objective reality and our knowledge and interpretation of it (our subjective reality) – which is influenced by a whole range of social, cultural, and historical factors (Bhaskar, 2011). Mingers et al. (2011) explain that:

‘[Critical realism] defends a strongly realist ontology that there is an existing, causally efficacious, world independent of our knowledge. It defends this against both classical positivism that would reduce the world to that which can be empirically
observed and measured, and the various forms of constructivism that would reduce the world to our human knowledge of it’ (p. 1).

Therefore in adopting a critical realist position this thesis recognises that the physical infrastructure of bus services operate and exist independently of a particular individual’s interpretation or experiences of it, whilst focusing on the ways in which passengers apply subjective meaning to their experiences of this system through travel-time use. Hence, the knowledge that has been generated represents the researcher’s interpretation of the subjective meaning that passengers ascribe to their experiences of travel-time activity on bus services. Chapter II has discussed how – without passengers to create it – the social construction of the bus as a public place loses meaning; becoming an ‘empty carcass’ (Jain, 2009, p. 95); in relation to this, Mingers (2004) has noted that critical realism accepts that there is distinction between the various types of objects of knowledge. Mingers et al. (2011) explain that these types are physical, social, and conceptual; meaning that one topic of study (i.e. “the bus”) can have two or more different epistemological and ontological characteristics. The bus is thus a different object of knowledge whether considered physically, socially, or conceptually (and this is evident in the many different conceptualisations of travel-time discussed in chapters II and III). In fully exploring travel-time use and journey experiences, it is important that the theoretical underpinnings of the research be able to take these different characteristics of the bus into account. The main focus of the research questions is on the social and conceptual characteristics of the bus – in reference to passengers’ experiences and perceptions of travel-time. However it is also evident that as an externally operating service/system, the physical characteristics of the bus might also be important in influencing these.

Reflecting on this insight, it is therefore necessary to consider what types of data are appropriate to exploring the different characteristics of the bus discussed above. As mentioned previously, this thesis incorporates qualitative and quantitative data through a mixed-methodology. Chapter III has explained that qualitative studies into travel-time use have been successful in generating knowledge on the meanings and experiences of travel-time to passengers (see: Jain & Lyons, 2008; Watts & Lyons, 2011; Watts, 2008; Noble, 2008; Guiver, 2007; Jain, 2009; Jain, 2011). However, it has
also been discussed that quantitative research by Ettema et al. (2012) has more recently challenged some of the qualitative travel-time use findings which focus only on the subjective level, which suggests that the different types of data are showing different perspectives on travel-time experience. There is a certain restriction in qualitative data being more widely generalisable (Williams, 2000), particularly in a stricter interpretivist qualitative approach. This thesis holds that it is important that the knowledge on travel-time use and experience generated from the empirical data is *relevant* to the wider bus user population, whilst accepting that it is not wholly *representative* of it. In this sense the incorporation of quantitative data into the findings is desirable to explore the qualitative insights amongst a wider sample of the bus user population than would be feasible by qualitative methods alone (within the scope of this thesis).

This approach is routinely referred to as a triangulation of data (for example see: Williamson, 2005; Denzin, 1989; Creswell & Clark, 2010). As discussion in Chapter VI demonstrates, this purposive contrasting of data through the mixed-methodology shows two perspectives on the same subject, almost like parallel dimensions; in some respects the datasets support one another, and yet in others they assert contrasting explanations. It is of critical importance that – where it exists – difference between these two visions of the bus is explicitly drawn out in such a methodological approach, and the discussion which follows, as opposed to forcing the two to align like mismatched jigsaw pieces. The reason for the difference is that the quantitative and the qualitative both provide specific forms of insight into the experience of travel-time use and passenger experience which it is impossible for the other to provide (Creswell & Clark, 2010). As Williamson (2005, p. 7) explains:

> ‘The objective in mixed-methods studies is to use different data collection methods to add to understandings gleaned from the work. Gaining different perspectives from data and using them to give a fuller picture enhances the rigour of the research’.

The use of qualitative data in this thesis provides subjective explanations for the travel-time experiences of passengers represented in the quantitative data, whilst
simultaneously the quantitative data can be used to explore how widely applicable the qualitative insights can be said to be.

Discussion in chapters V and VI produces a sub-commentary on the commensurability of the narrative form of qualitative discourses with statistical data collected in quantitative survey, and tests the boundaries of overlap and incompatibility between the two forms. This parallel methodological commentary considers the implications of incommensurability, and highlights that at times the only option that the researcher has is to simply choose between two incomplete and therefore sometimes competing perspectives on the “truth”.

A mixed-methodology is suited to the aims and research questions presented in Chapter III, primarily because these demand explanations of the relationship between travel-time activity and journey experience which illuminate the subjectivity of the experience, whilst at the same being relevant to the bus user population at a more aggregate level. Mingers et al. (2011) explain that often such an approach is necessitated by objects of study that have differing epistemological and ontological characteristics:

‘Since a particular object of research may well have different characteristics, it is likely that a mixed-method research strategy (i.e., a variety of methods in the same research study) will be necessary and [critical realism] supports this’ (p. 1).

In this thesis, both qualitative discourses and quantitative data are combined to create the triangulation – or layering – of data. First, qualitative data were generated to explore passengers’ travel-time activities and journey experiences, providing detailed contextual insights into the meanings passengers ascribe to their journeys. Following this, themes were drawn from the qualitative data and used to construct a quantitative survey to test these findings more widely. The specific phases of the methodology are discussed in depth in sections 4.2 and 4.3.

There is a wealth of academic literature that advocates the use of a mixed-methods approach – particularly in contexts in which the wider implications of subjective phenomena are sought. Creswell et al. (2004) present an analysis of several mixed-
methods research projects, and note that the rationale behind this approach is that ‘gathering both forms of data contributed to a comprehensive and complete understanding of the results’ (Ibid, p. 8). Onwuegbuzie and Leech (2004) support this, and go on to explain further benefits of adopting a mixed methodology:

‘Mixed methods research helps investigators to develop a conceptual framework, to validate quantitative results by linking the information extracted from the qualitative phase of the study, and to construct indices from the qualitative data that can be utilized to analyze quantitative data’ (Ibid, p. 770).

Methodologically, the research by Stradling et al. (2007) into ideal bus journey experiences can be viewed as most closely aligned to this thesis. In their research, Stradling et al. (2007) adopted a mixed-methodology, consisting of a large scale quantitative survey supported by qualitative data collection, which was used to explore the wider findings in greater depth, providing context to the quantitative results.

Reflecting on Onwuegbuzie and Leech (2004), this research followed a different approach to Stradling et al. (2007), first collecting qualitative data and then testing the findings from this in a large scale quantitative survey of bus users in Bristol, UK. As emphasised in the literature review, journey experience is highly contextual and subjective. The logical approach to this therefore, was to explore travel-time activity and journey experience in detail from a qualitative perspective in the initial rounds of data collection. In doing so, a range of in-depth discourses were generated, and central themes about travel-time use, mobile technology use, and subsequent user experiences of the bus identified and refined for further analysis. This was essential due to the fact that there is little existing research on the use of travel-time by bus passengers in relation to journey experience. To get the most meaningful data therefore, it was prescient to discount the use of quantitative survey for the first round of data collection, and use the qualitative data to direct the content of the questionnaire.
Thus, detailed qualitative data was first collected from a smaller sample of individuals to provide a corpus of journey experiences and travel-time activities on the bus; from this, consistent themes and discourses of travel-time experience more generally were drawn out. These were then constructed into a large scale survey to test their wider applicability. The relationship and interaction between the different datasets is summarised in Figure 6 below:

Puchta and Potter (2004) note that questionnaire surveys are criticised for their restrictive nature, in that they do not allow participants to go beyond the scope of the pre-defined responses determined by the researcher. This methodology attenuates the restrictive nature of a questionnaire survey by defining its limits not from the researcher’s perspective, but from bus passengers’ experiences. The qualitative discourses serve to define the scope of the survey, and the format and content of Phase 3 is dictated by the experiences, views, and opinions of the participants in Phases 1 and 2. Creswell et al. (2004) note that mixed methods approaches often
follow this format, and explain that one principal function of a mixed methodology can be that it first identifies research questions or themes through qualitative data collection, which are then developed and tested quantitatively (see also: Onwuegbuzie & Leech, 2004). The exploratory function of Phase 1 led to a wide first approach in collecting qualitative data, which was successively honed through the focus groups in Phase 2, to the narrow, targeted focus of the survey in Phase 3. The following section outlines the structure of the methodology, before discussion which goes into greater detail on the design and execution of each specific phase.
4.1.2 Overview of methodology

The thesis research strategy consists of three distinct phases. These phases each represent one specific piece of data collection. The visual concept and written overview introduce these three phases and outline their functions within the methodology, providing the outline for the following sections which discuss each phase in greater detail.

**Phase 1 – Online data collection**

- Internet-based data collection – utilising Facebook – to generate qualitative data and working assumptions for Phases 2 and 3.

**Phase 2 – Focus groups**

- Focus groups conducted separately with bus users and car users; to inform the design of Phase 3, provide new data, and further test the findings from Phase 1.

**Phase 3 – On-board bus survey**

- Large-scale on-board survey of bus users in Bristol to provide quantitative support to the indications and assumptions generated in Phases 1 and 2.
Phase 1

Primary data collection using the online social networking site (SNS) Facebook™. Qualitative data on individuals’ use of time whilst on the bus – including written accounts of journey experiences – were collected over a period of six weeks. This data provided preliminary working indications and assumptions about subjective user experience and use of time whilst on the bus.

Phase 2

Two focus groups conducted with participants recruited from the UWE student population. The focus groups were designed around broad themes relating to the findings generated in Phase 1; and explored these themes in greater depth with the two groups consisting separately of bus users and bus users. The focus groups had the function of testing content for the survey conducted in Phase 3, providing insight into the language used and the ways in which this specific population conceptualised and discussed their experiences and use of travel-time.

Phase 3

This phase represented a large-scale survey of the Bristol bus user population to explore the use of travel-time, and how this might influence journey experiences and service perceptions on the bus. Where the findings generated in Phases 1 and 2 display consistency, it was necessary to test these amongst a wider population of individuals. The questionnaire survey provides quantitative support to the qualitative insights that this thesis has generated.
4.2 Phases 1 and 2 – qualitative data collection

4.2.1 Introduction and rationale

This section discusses the qualitative phases of data collection conducted for this thesis. Given the limited research on travel-time use on the bus – as discussed in the literature review chapters – the initial phase of data collection was exploratory. Phase 1 had the aim of understanding contextual qualitative discourses of passengers’ experiences of the bus, which used a novel method for collecting data; therefore this section goes into additional depth in its explanations of the method with the view to establishing an initial example of its practicalities to inform future adopters of this approach.

The approach used for Phase 1 aimed to capture a geographically dispersed selection of bus users, whilst recognising its limitation of representing the population as-a-whole. Three options were considered for Phase 1: the first was a “standard” focus group approach; the second a set of synchronous\textsuperscript{16}, online focus group sessions; and the third was an asynchronous online discussion forum – the method finally decided upon. All three of these options can be described as focus groups, and the main differences between them lie in the specifics of their application – the locations, potential sample frames, and timings. This is discussed further in the next section.

Following this, Phase 2 took forward the indications about the bus environment generated in Bus Tales, and explored these in two focus groups. Phase 2 was designed with a view to both informing the design of the quantitative survey in Phase 3, and generating additional qualitative data to augment the Bus Tales dataset. After the broad exploratory data collection engendered by Bus Tales, these focus groups narrowed the focus of the data collection to probing the specific indications about travel-time and subjective experience on the bus that Phase 1 generated. The two

\textsuperscript{16} “Synchronous” online focus groups are those which are conducted in real-time in a similar fashion to traditional face-to-face methods; “asynchronous” focus groups are those which a continual discussion is conducted over an extended period of time (6 weeks in the case of this research), in which participants engage at a time which suits them, responding to questions and comments which were posted by either the researcher or other participants at an earlier point.
focus groups consisted separately of participants that were car users and bus users. Reflecting on Guiver (2007) – who has explained that perceptions of bus services are formed in an episodic manner and compared to the iconic image of the car – collecting data from car users as well as bus users serves to provide wider context to the data generated on bus use, and gives the opportunity to contrast the two datasets from these groups to provide some additional insight into how the bus is viewed by the wider population. The question design and administration is discussed in full detail in Section 4.2.5 (p. 109).

4.2.2 Phase 1 – developing an online method

The following section situates an online method with a review of allied methodological approaches, before looking specifically at what became “Bus Tales” – the online discussion group constructed for Phase 1. A focus group is – first and foremost – an interview (Barbour, 2007). Interviews are synonymous with qualitative research, as they allow the researcher a view of the social world from another person’s perspective. “Traditional” focus groups conducted face-to-face with a small/medium group of participants are widely recognised and proven to be an effective method for eliciting rich qualitative data from participants in a social setting (Patton, 2002). The focus group allows the researcher to hear and record people’s expressed opinions, views, interpretations, and experiences in the group context: ‘The object is to get high-quality data in a social context where people can consider their own views in the context of the views of others’ (Patton, 2002, p 386). Focus groups allow participants to provide meaningful responses which are relevant at the subjective level (Ibid); this is an ability which is well suited to the aims of this initial phase.

A limitation of traditional focus groups however is that they have to be physically accessible by the participants, and therefore are restricted to an acceptable geographical area from which participants can be sampled (Kozinets, 2010). Through adopting an online focus group method, it was envisaged that it would be possible to transcend the limitations of a physical focus group, and to recruit and involve
participants who might be prohibitively dispersed in an offline context. This was argued to be more in line with the aims of Phase 1 to collect qualitative data from as wide a sample of bus passengers as possible.

It is recognised in this thesis that every method has strengths and limitations, and the use of an online method has the potential to influence the effects of co-present human interaction within a group that is described as one of the strengths of the focus group method (Barbour, 2007); thus engendering an altered group dynamic. Furthermore there is a greater challenge in establishing and controlling the sample population, which is discussed specifically in Section 4.2.6 (p.112). However, Franklin and Lowry (2001) have noted that online methods enhance the management of participant discussion and reduce issues of interpersonal sensitivity, with people feeling freer to express themselves in an online context. Furthermore they note the electronic format of online discussion aids in the accuracy of data collection and transcription. Considering this in conjunction with the requirement of Phase 1 to contact dispersed populations, the traditional focus group method was eliminated first in favour of adopting a more novel online approach in this exploratory phase.

The internet has facilitated the opportunity to collect data from a large number of participants who may be spatially distant, and therefore potentially difficult, time-consuming, and costly to contact or bring together for face-to-face focus groups or interviews (Kozinets, 2010; Hughes & Lang, 2004). Until more recently, the internet has been most commonly used for data collection in the form of online surveys or content analysis of existing websites (Bryman, 2004), however Kozinets (2010) notes that online focus groups have grown in popularity in the past five years, because: ‘the online focus group is an efficient and highly cost-effective mechanism for gathering detailed data in large quantities’ (Ibid, p. 125; see also: Mann & Stewart, 2000). Online focus groups have four advantages: (1) they can be conducted asynchronously – and over an extended period of time; (2) they can involve a geographically dispersed sample population; (3) they make moderation easier (and limit the opportunity for single individuals to dominate group discussion); and (4) they can utilise a very flexible and adaptive moderator guide (Kozinets, 2010).
Hughes and Lang (2004) consider that *synchronous* online focus groups can have problems with attaining full participation and facilitating a large group of participants in comparison to face-to-face focus groups (see also: Franklin & Lowry, 2001). By conducting the focus groups *asynchronously*, individuals have the freedom to participate in discussion as-and-when it suits their schedules, but yet they are constantly connected to – or ‘in’ – the group whilst they remain a member; allowing for the facilitation of a very large focus group (30+ participants). Using this rationale, the option of a synchronous online focus group was therefore eliminated in favour of an asynchronous online discussion group. This method was argued to be the most promising in respect of the aim to collect exploratory qualitative data.

The final decision regarding the form of the method employed in Phase 1 was the location of the study. With specific reference to the second research question, this thesis is interested in the nature of technology use in relation to journey experience. Thus, a Social Network Site (SNS) was considered as an appropriate location because these sites offer the potential to reach participants that are technologically “equipped”. Chapter III has considered the use of asynchronous online tools in the form of the online research blog: 73 Urban Journeys (see: Jungnickel, 2003). The 73 Urban Journeys research site was able to generate rich qualitative data from a broad sample of bus passengers. Blogs however, do not have the same interactive capabilities as SNSs, and therefore are not so suited to the focus group approach. SNSs are comprised of dense networks of interlinked individuals, all using the same software, and already proficient in the use of the site. SNSs therefore remove issues of co-location of participants and availability of participants.

At their core, SNSs are social communication tools. Hundreds of millions of people now use SNSs internationally; and such sites support a wide range of both individual and group practices and interests. SNSs provide a range of technological features; such as instant messaging, blogging, mobile connectivity, photo/video sharing, and music sharing – among many more (boyd & Ellison, 2008). This functionality is well suited to collecting broad exploratory data on bus passengers’ journey experiences, and its relation to their use of travel-time. Murthy (2008) describes SNSs as a key aspect of ‘Web 2.0’ (meaning the second phase of the internet, or its interactive phase). This is
due to their ability to connect users together publicly, in real-time, and on-the-move (through a remotely-hosted application). According to Murthy, ‘the sites have a simple mission – network through existing and compound relations (i.e. ‘friends of friends’)’ (2008, p. 844).

Whilst there is some debate over a stringent definition of what constitutes an SNS, there are features that all such sites do have in common. Foremost of these is that SNSs are highly networked in nature, and they are designed specifically to enable a person to communicate with a large group of physically separated individuals with relative ease in terms of both effort and cost. SNSs therefore have potential in research, for example when it is necessary to enlist research participants or contact large, dispersed populations (Murthy, 2008). Murthy (2008) does note however that the use of SNSs for social research also has its drawbacks, and those people that do not have access to the internet will not be represented in the sample population:

‘Membership of these communities is inherently restricted to the digital ‘haves’ (or at least those with digital social capital) rather than the ‘have nots’, and ethnic/gender divides strongly persist’ (p. 845).

Despite this, there remains a strong argument for the use of SNSs in the context of this thesis. In any piece of qualitative research there is an inherent restriction on the potential sample. This thesis acknowledges that the decision to use an SNS engenders a sample bias in Phase 1; however as discussed above, the key rationale of this decision is to assist in recruiting those potential participants that might use technologies on-the-move. Furthermore, this thesis holds that the use of SNSs is a method which has the potential for high inclusivity. Uptake of emergent ICT technologies which allow the use of SNSs such as Facebook is high in UK society (Ofcom, 2010); in addition to providing access to more socially included participants, online research methods can also include groups that might be excluded by more traditional offline approaches:
‘The use of social networking sites for focus groups, for example, can result in increased inclusion for those with disabilities (mobility and otherwise) as well as groups that are vulnerable or difficult to access’ (Murthy, 2008, p. 845).

Therefore the use of an SNS is argued in this thesis as an appropriate and suitable method of research. Discussion below explains the specific location of the study on Facebook (a popular SNS), and turns to discuss the data collection strategy and design considerations. Reflecting on Morgan (1998), the aim in designing and constructing the discussion group was to create an online space in which discourses of travel-time activity, technology use, and journey experience were generated, and where group members were able to prompt others to concur, develop ideas, or argue against one another’s opinions.

4.2.3 “Bus Tales”

Phase 1 was located on the popular SNS “Facebook™”. Facebook is an internet site designed specifically to allow individuals to communicate within and beyond their social group. Facebook is just one amongst many internet sites with this purpose, and the international popularity of such websites exploded in the first decade of the twenty-first century. Facebook was chosen for its prominence as the most popular online SNS, with a current membership of 800+ million users, 50% of whom log in to the site each day (Facebook, 2011).

This thesis recognises that whilst Facebook is an extremely popular site for communication, the style of communication used on the site is likely to be different to that required for data. boyd and Ellison (2008) have noted that day-to-day communication on SNSs is largely through short comments and personal messages. Phase 1 aimed to generate detailed and rich discourses. With no examples of literature which describes the use of SNSs specifically for generating such data, the specific approach developed in this thesis to do so is discussed in Section 4.2.5 (p. 109), with a consideration of the efficacy of this approach in reflection in Section 4.2.6 (p. 112). The following discussion explains the key aspects of this method in detail with a view to
informing future adopters of this approach, whilst drawing upon what analogous literature there is available.

“Bus Tales” was the name chosen for the online discussion group that was constructed for Phase 1 on Facebook. An image has been included on the following page which displays the basic functionality of a group page such as Bus Tales (see: Figure 7).

Within Facebook, individual users each create their own personal ‘profile page’. This profile page typically contains some personal information about the person (their age, gender, interests, etc...), along with photographs, videos, links, and other personal items that the person wishes to display online (Utz, 2009). Central to the person’s profile is their list of Facebook ‘Friends’. The list of Friends provides an immediate link to the profiles of other individuals that the user has made specific mutual contact with on the site. Coupled with this list of Friends are the various communicative tools that allow Friends to contact one another, and the wider Facebook user population. Facebook Friends can send public or private messages to one another, or comment on any aspect of another person’s profile.

Facebook provides the ability for users to set up groups. Group pages are similar in format to the profile of an individual user – they allow pictures and videos to be posted for group members to view, they contain a group description and wider information about the group, and they allow for instant communication between group members. Further to this though, group pages provide discussion boards. In Phase 1, Bus Tales consisted of a group page set up specifically with the intent of using the discussion board to host the focus group discussions, with the wider group page providing the research context and related information that was relevant to participants.

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17 It should be noted here that on Facebook the term ‘Friend’ is used to simply describe a link between the profiles of two individuals on the site, and does not necessarily describe the same level of social relationship that the everyday use of the term ‘friend’ implies. Therefore, ‘Friend’ in relation to Facebook in this thesis is capitalised (see: boyd, & Ellison, 2008; Utz, 2009).
4.2.4 Sampling strategy

On Facebook, participants were recruited to the Bus Tales research group using a variation of the Respondent Driven Sampling (RDS) method described by Wejnert and Heckathorn (2008). RDS is a network-based sampling method based upon the notion of snowball sampling. Snowball sampling operates by starting with a relatively small number of initial ‘seed participants’, who then provide the route through which to contact further participants within their social networks (Ibid). RDS differs slightly from more traditional snowball sampling methods in that here it is the respondents themselves who are asked to recruit their peers, as opposed to simply providing the contact information of their social networks that the researcher subsequently utilises (Ibid). The RDS sampling method used in this thesis displays qualities of purposive sampling, which involves the researcher making a decision as to the desired characteristics of individuals from whom they require data, and then selecting participants based on this requirement (Morgan, 1997). In this case potential participants were purposively sampled based on them having access to a SNS. RDS is particularly suited to the SNS context as it aligns with the overall communicative functions of such sites, and on Facebook it was identified as being a relatively simple and low-risk route through which to recruit an appropriately broad sample of individuals.

The aim to collect exploratory data from bus passengers into their use of travel-time meant that any bus user of the age of 18 or above\(^{18}\) could join the group. Initially, a recruitment message was sent out to a relatively small sample of Facebook users though the site’s dedicated messaging system. The message was sent out to 30 potential participants from within the researcher’s list of social contacts on Facebook, who were selected for their perceived regular use of the site. This message included the invitation to the group, and also a request that the recipient then invite their Facebook Friends to join the group. For each member that subsequently joined as a

\(^{18}\)This age limit was imposed in this study due to stipulations in the ethical review process which this thesis is bound by. The process of gaining ethical approval to conduct a study involving minors was prohibitively robust when considered within the time-frame which it was necessary for this study to follow.
result of the RDS, a further welcome message was also sent to them encouraging them to invite their Friends to participate in the research.

In addition to this, external advertising materials were prepared in an attempt to sample wider participants and add them to the RDS process. For ethical and practical reasons, this advertising was the most restricted aspect of the sampling procedure, and was limited to the University of the West of England (UWE) campuses in Bristol, UK. Specific discussion on the ethical issues addressed in conducting this methodology is found in appendix 9.4 (p. 348). Facebook is a popular website amongst students on the campus, and advertising around the campus and on the UWE intranet was considered an effective additional pool of potential participants that had a higher-than-average likelihood of being technologically equipped on-the-move. Furthermore, the university has its own dedicated U-Link bus network, with a sizeable proportion of students and staff using the mode to access campuses and travel within Bristol more generally. Therefore this thesis holds this student population as a particularly fertile group for recruitment of participants for the study, and to engage in further RDS.

The offline advertising materials used in sampling consisted of leaflets and posters advertising the group, links to the Bus Tales group on the transport page of the university intranet, and a newspaper article printed in the university newspaper – the Western Eye. Examples of these sampling materials are presented in Figure 9 and Figure 10 below.

The RDS method of sampling combined with the offline advertising proved successful in recruiting participants to the study. In total, the sampling strategy recruited 146 members to the Bus Tales discussion group.
Do you use Facebook?

Do you use the bus?

If yes then visit BUS TALES...

Join the debate and help to improve our bus services.

Search for BUS TALES on Facebook or go to:
www.tinyurl.com/bustales

Figure 9 - Example of flyer used to advertise discussion group
Bus Tales

Bristol is a city with a problem: traffic. At rush hour each and every day our streets twice fill to bursting – marking the ‘high tide’ of the sea of cars that constantly washes over the Bristol landscape. Can the bus be recast in the public’s mind as a means of helping to address this?

As UWE students we are in a prime position to lead a move towards higher public transport use and lower congestion in the city. The university’s Centre for Transport and Society (CTS) – based in Q-Block at Frenchay – is undertaking a project to investigate what it is that people do with their time whilst they are on the bus.

The idea is that the time you spend on the bus could be equally or more appealing than the time you would spend, say, in the car, because you are able to do more with it; be it reading, working, daydreaming, texting, emailing, or even a little snoozing!

This ‘time-out’ is potentially a real advantage that the bus has over the car, and could help to encourage drivers who get fed-up sitting bored in the traffic to give the bus a try and see how they can put their travel-time to far better use. One of the big areas of potential is in the use of new technologies – such as mobiles and PDAs – and UWE students are amongst the first generation to be putting these new technologies to the test.

In a new and unique approach, the research project is even putting one of these new technologies to good use for collecting data: Facebook.

A dedicated Facebook group has been set up by CTS researchers to collect data from UWE students on what they do whilst on the bus, in the hope of finding some creative and uses of time (involving in some cases the use of mobile technologies) that could be of interest to other people and help promote use of the bus as a mode of travel.

So if you’re a bus user at UWE, have a bit of spare time on Facebook, and would like to become part of an important research project aimed at improving our city, come join the discussion and tell us your bus stories. To become a member of the group, simply search ‘Bus Tales’ from the Facebook homepage and join in; or alternatively, go directly to:

www.tinyurl.com/bustales.

Figure 10 - Newspaper advert for the Bus Tales discussion group (Clayton, 2009, p. 11)
4.2.5 Data collection strategy, question design, and aesthetic considerations

There are a vast number of Facebook group pages, with many different functions and focussing on a huge range of topics (Facebook, 2011). It was important therefore to establish the Bus Tales page as a research discussion group, and to emphasise its official function whilst still engaging participants and ensuring that it would stand out amongst the other groups that participants might be members of. This was achieved through the design of the materials posted to the group, and also through the regular contact between the researcher and the participants emphasising the function of the group, and encouraging members to participate and submit data.

Four broad themes around travel-time use and bus journey experience were identified from existing travel-time research. The themes were kept sufficiently general to capture as much data on travel-time use and journey experience as possible, whilst still being structured around what is already reported in the research literature about travel-time use and the journey experiences of bus passengers. These four themes are:

- Perception of the bus
- The creation and form of bus journey experiences
- Travel-time activity and carried objects
- The sociality of the bus

Bus Tales lasted for a total of six weeks, during which time the research questions related to each of these themes were posted sequentially to the discussion boards. The development of an appropriate set of questions is a crucial factor in determining the success or failure of the focus group method. Puchta and Potter (2004) discuss the freedom of discussion that a focus group can engender, noting that participants are able to generate data in their own words, and highlight topics and issues that are relevant and important to them. This is recognised as the key distinction between the focus group and the survey: ‘questionnaires constrain people’s responses while focus groups allow people to give their own views in their own ways and their own words’ (Ibid, p. 47). This is an important asset in the qualitative phases of data collection in this thesis, in which rich subjective data about participants’ bus journey experiences
are being sought. However, one of the key problems identified with focus groups is exactly this discursive freedom which focus groups encourage. Puchta and Potter (2004) explain that this is because the freedom provided by focus groups ‘lacks precisely what to many is attractive about questionnaires: control’ (Ibid, p. 45 – original emphasis).

Without control, participants in the focus group have to opportunity to talk about whatever they please, and there is the potential for discussion to veer away from the topic being explored and enter into unrelated territory. Therefore it is the task of the moderator to create a sufficient degree of freedom in the focus group discussion to allow participants to fully express themselves, whilst at the same time maintaining control over the topics of discussion and ensuring that relevant data is generated. The first tool that the moderator has at their disposal in achieving this aim is the questions that are posed to participants. An appropriately structured and planned question format is an essential ingredient in the moderator’s task of controlling the discussion productively. Whilst both Phase 1 and Phase 2 are forms of focus group, the question format and structuring of the delivery was distinct for each, due to their different functions. The broad exploration of Phase 1 was facilitated through a looser question structure, which could adapt to the direction of the discussion, as discussed below. The aim of Phase 2 to refine the findings and indications of Phase 1 for the survey in Phase 3 meant that a more structured format was employed (discussed in Section 4.2.10, p. 118).

The research questions posted to the Bus Tales discussion page are presented in appendix 9.3 (p. 347). The research questions were pre-defined to maintain consistency for the analysis plan (see: Section 4.2.7, p. 114), and posted to the discussion board on an ad hoc basis, dependent on the levels of activity still occurring on the previous questions. Participants were asked to read through each of the research questions posted to the discussion boards, and then to provide a response if they had an opinion.

As discussed earlier, there was a potential conflict between the colloquial discursive aspects of Facebook more generally (see: boyd & Ellison, 2008), and the need to
generate more detailed discourses. Thus, the researcher attempted to encourage more extended discussion and explanation in cases where participants’ responses were brief or lacked detail. This is discussed further in reflection in the following section. In the same fashion as in more traditional focus groups, the researcher moderated the discussions and contributed when necessary – either to probe a participant’s response, seed a new research question, or to “police” the discussion (which in actuality was not necessary). To encourage and sustain engagement with the research questions, participants received weekly update messages which set out the new research question to be addressed, and further summarised the discussion that had occurred since the previous update. Participants who had recently contributed to the discussion were mentioned in these messages and asked to qualify their responses where necessary.

There was a balance to be struck between the imperative to keep the group and the discussions lively, dynamic, and relevant, and the need to not ‘swamp’ the discussion boards with too much information at once. Once posted, questions remained on the discussion boards for the duration of the study so that participants could return to them if necessary, or so that new members could add data of their own. Bus Tales was discontinued a week earlier than anticipated. The decision to end this study came once data collection had peaked and had passed the point of diminishing returns; i.e. little new information was being added to the discussions on the boards and the time-costs outweighed the gains in data. There are several references to this issue in the literature, and this point is described as ‘data saturation’ (see: Krueger, 2009; Sim, 1998; Pope et al., 2000):

‘When no new issues seem to be forthcoming, a point of ‘saturation’ will have occurred, (...) and further groups probably need not be conducted’ (Sim, 1998, p. 349).

After the Bus Tales site had been discontinued and removed from Facebook, the data was then analysed and key indications about travel-time use and journey experience were generated. These indications were then taken forward to form the basis of the question protocol in Phase 2 (see: appendix 9.1, p. 329), and further to inform
elements of the survey design in Phase 3. The full analysis plan for Phase 1 is presented in Section 4.2.7 (p. 114).

4.2.6  Summary: reflections and methodological issues

Before moving to discuss the analysis plan for Phase 1, it is useful to present an overview of the key methodological issues which are apparent with the benefit of hindsight, now that this phase is complete. Being a novel form of data collection it was not possible to envisage some of the issues that were encountered during the process of data collection, and the key issues which might be taken into consideration by future adopters of this approach are detailed below:

Defining – in detail – the composition of the sample population

In the planning phase of this study, it was envisaged that data on the demographic characteristics of participants could be extracted from them over the course of the data collection. However due to some of the specific limitations of operating within the confines of an SNS such as Facebook, it was not possible to collect such data by a uniform method. Gender was easily discernable simply from participants’ names, however much of the data relating to age, occupation, and other personal details were not explicitly available to the researcher within the confines of Facebook’s privacy system, and therefore only an anecdotal inference of these characteristics was possible from participants’ contributions and discussions. It is suggested that future incarnations of this approach would pay more attention in the planning phases to developing a method for extracting this data in a uniform and explicit way.

Encouraging continued interest over an extended study period

There was a fine line to tread between over-seeding the discussion boards with questions and information, and taking a less-involved approach. The former option has
the potential to keep people engaged, and yet can – as Bus Tales demonstrated – frustrate people if they receive too much communication, causing them to disengage or ignore the “deluge” of information. Taking a less involved approach however can have the opposite effect of making a group feel “lifeless” and perhaps make participants question the importance of engaging in discussions. Advice for future uses of this approach would be to attempt to engage in real-time when a person contributes to the discussion; however it is accepted that this can be difficult and time-consuming, and requires the researcher to be on Facebook continuously for extended periods simply waiting for submissions to which to respond.

The clash between SNS etiquette and practicalities of research

It has been noted that it was necessary to at times provide participants with a large amount of information (for example the welcome message and the code of conduct) which might run counter to the normal forms of communication expected on SNSs. SNSs are largely about fast (“bite-size”) but continuous connectivity, and sometimes the extended explanations or discussions required by qualitative research do not sit easily within the common discursive practices of SNSs.

The incompatibility of SNS tools with research requirements

This thesis holds that SNSs are a valuable addition to the social researcher’s “toolkit”, and allow easy communication with a large group of physically dispersed participants with relative ease. Despite this, care is essential in the planning phase in defining exactly what the researcher will need to do and how they will need to communicate with their participants. On a small number of occasions the communicative tools provided by Facebook did not match the requirements of the researcher – specifically in the ability to contact many (but not all) participants simultaneously. At points this lead to a high time-cost for the researcher in communicating with a large group of participants individually – which was not anticipated. It would be beneficial with
hindsight to develop a communications strategy in the planning phase to assess the communicative needs of the researcher and assess the suitability of different SNSs to meeting these needs.

4.2.7 Data analysis – thematic analysis

Krueger (1998b) explains that it is essential to take a systematic approach to the analysis of qualitative data; the analysis should consistently follow a logical process throughout, and the questioning should be sequenced to allow for a consistent and planned analysis. The empirical data generated in Phase 1 was analysed thematically. Thematic analysis as a defined method of analysis has historically lacked formal recognition. Braun and Clarke (2006) explain:

‘Thematic analysis is widely used, but there is no clear agreement about what thematic analysis is and how you go about it’ (p. 79).

Braun and Clarke (2006) argue that in fact a great deal of contemporary qualitative analysis is actually thematic analysis, but that it is either misrepresented as another form of analysis, ‘or not identified as any particular method at all’ (p. 80).

Thematic analysis is a flexible method of qualitative analysis which is well-suited to the discourses generated in Phase 1. The method is not allied to the assumptions of one particular theoretical perspective, and this thesis recognises that the themes that are generated in the process of analysis are influenced by the researcher’s intellectual engagement with the data, in relation to the assumptions and values which underpin the researcher’s ontological and epistemological position (discussed previously in Section 4.1.1). May (2001) has explained how the influence upon the research process of the researcher’s background knowledge, world view, and value judgements are inescapable in social research, and that these are deeply embedded in the questions that the researcher chooses to ask. Therefore it is important to emphasise that whilst thematic analysis as a general methodology is not restricted to a particular way of thinking about the data, it is nonetheless essential to make clear the assumptions that
underpin the research. In the context of the travel-time focus of this thesis, thematic analysis is used in the analysis of the Phase 1 data to report the ‘experiences, meanings and reality of the participants’, which Braun and Clarke (2006) explain as just one way in which thematic analysis can be used.

In the analysis of the Bus Tales data, the themes around which the study research questions are structured were taken as the starting set of four themes: perception of the bus; the creation and form of bus journey experiences; travel-time activity and carried objects; and the sociality of the bus. Data related to these four themes were specifically coded, and sub-categories defined where identified (for example: “ICTs” within “travel-time use”, and so on). The aim of Phase 1 was to generate a corpus of data about the ways in which people discussed their travel-time activities and the effect of this on journey experience. Therefore the intent was for the coding to be sufficiently flexible to allow for the identification of new themes. This analysis represents the first layer of the findings, with successive layers of understanding and meaning applied through the subsequent analyses in phases 2 and 3.

As discussed, the data being analysed was discursive data about travel-time use and journey experiences on the bus. Thus, the analysis aimed to explain how people “make real” their understanding of their experiences through their words and descriptions. Coding was carried out manually using a parallel system of alphanumeric and colour coding to allow for cross-referencing between themes and sub-categories. The ideas and explanations generated in participants’ discourses were coded thematically and cross-referenced to other themes and sub-categories to which they related. The penultimate stage of the process was to deconstruct the data and re-compile it thematically. These thematic sets of data were then analysed to produce a detailed and rich account of passengers’ journey experiences on the bus, and their use of time whilst on-the-move. The findings from this analysis are presented in Chapter V, and these are central in developing the discussion alongside the quantitative data in Chapter VI.

The following section outlines Phase 2 of data collection in this thesis, which consists of focus groups conducted to assess how the findings from Phase 1 might be taken
forwards and tested in the large-scale questionnaire survey conducted in Phase 3, and to add further qualitative data to that collected in Phase 1.

4.2.8 Phase 2

The previous section above has gone into considerable detail in providing the rationale for the use of focus groups for the collection of qualitative data, and in Phase 2 the same rationale is employed for their use.

It has been discussed earlier in this chapter that Phase 2 consisted of two focus groups conducted separately with bus passengers and car users, in order to contextualise the data from Phase 1 in relation to Guiver’s (2007) explanation of how bus travel is perceived in relation to the car. Both focus groups followed a similar moderator guide (see: appendix 9.1, p. 329); however both groups had within them elements that were distinct to the specific group only (bus user/car user). The similarity in the structure of the two groups makes comparison between the groups possible, whilst the distinctions were necessary to allow the indications from the Bus Tales data to be explored successfully in the differing modal context of each group and to define appropriate questions for the survey in Phase 3. The focus group pro forma and moderation is discussed in full detail in Section 4.2.10.

4.2.9 Sampling and recruitment

Section 4.2.6 explained how there were issues encountered in specifically establishing the demographic composition of the sample in Phase 1. Through analysis of the discussions between participants and further collection of what data was available on their Facebook profiles, it was evident from this secondary information that the sample was comprised of a high proportion of young individuals between the approximate ages of 18-24, with a significantly smaller proportion of older individuals. This is argued to be a result of the location of the offline advertising materials at the university, and also an unintended result of the RDS sampling strategy which can be
seen to have restricted the age demographic to participants’ Facebook contacts of the same or similar ages.

Thus, Phase 2 targeted the same age demographic. The rationale for this approach is found in the mediatory function of the focus groups in refining and augmenting the data from Bus Tales and establishing ways to explore the qualitative findings in a quantitative survey format. Phase 2 can be viewed as a parallel method to Phase 1, and therefore to maintain comparability between the datasets a similar demographic constitution was selected for the Phase 2 sample. Later discussion in Chapter VI will explain that the younger generation are of particular significance as they can be seen to be well “equipped” – as proportionately high adopters of the mobile technologies and ICTs which the research seeks to investigate in the context of the bus (see: Section 5.3.2, p. 206). Therefore collecting additional qualitative data specifically on the journey experiences and travel-time activities of this particular age demographic is in line with the third research question outlined at the close of Chapter III.

The participants were recruited from amongst the UWE student population studying at Frenchay campus. The rationale behind this sample frame was that the UWE Frenchay campus is located several miles out from the city centre where several large student halls are situated. Therefore it can be reasonably argued that many students studying at the campus have to travel to reach the campus; or – vice versa – to reach the city centre if they are resident at Frenchay. Most students can thus be seen to be using their mode of transport on a regular basis to-and-from the campus. Using a sample of students from the university meant that the participants were young people who had either relatively recently moved into car ownership, or were using the bus. Indeed, bus use is likely to be particularly high amongst students that are resident at Frenchay, as first year students are not permitted to keep a car on campus.

Patton (2002) suggests that a desirable and manageable group size is between 6 and 10 participants. Participants were sampled purposively, with the intent being to recruit two distinct groups of 6 – 10 regular bus users and 6 – 10 regular car users. As discussed previously, purposive sampling involves the researcher making a decision as to the desired characteristics of individuals from whom they require data, and then
selecting participants based upon this requirement (Morgan, 1997). There is an issue in recruiting participants for focus groups in that some people may not turn up, which has the potential to seriously inhibit data collection; however conversely, over-recruiting can also be an issue if too many participants attend (Krueger, 1998a).

Krueger (1998a) notes that these issues can be avoided through appropriate contact with potential participants and the offering of an attractive incentive to attend – thus, the researcher can secure a group of an appropriate size in which the participants want to attend. In focus groups participants are giving up an extended piece of time to assist in the research process, and also potentially incurring their own travel expenses to participate. Therefore it is appropriate to offer an incentive in return for this investment. In Phase 2, potential participants were offered £20 to attend one of the sessions. Individualised contact was not possible in the first instance of advertising, and posters were employed to recruit participants. The recruitment process proved successful; 6 car users and 8 bus users were recruited in total, and all attended the focus groups.

4.2.10 Question design and focus group administration

Wider issues surrounding the design of the question format in focus groups has been discussed in Section 4.2.2. As explained in Section 4.1.1, Phase 2 performs a mediatory role in testing the data generated in Phase 1 and determining how the travel-time activities and journey experiences of passengers on the bus can be explored more widely in a large-scale questionnaire format. In addition it has the role of generating additional qualitative data for the thesis which is analysed and compared to the findings from those of Phase 1. Therefore the question format in the focus groups followed the key themes generated in Phase 1 whilst incorporating flexibility into the questions to allow discussion to expand into other relevant areas if required. Patton (2002) discusses such an approach to focus group design as a middle ground between a fully free-form and open ended discussion typical of wholly exploratory focus groups.
(see: Puchta & Potter, 2004), and a strict determinist approach which follows a rigid script without deviation.

The full question format for the focus groups can be found in the moderator guides in appendix 9.1 (p. 329). The focus groups in Phase 2 were designed to hear participants’ views and opinions on travel-time use and journey experience in their own words, not as mere refutation or agreement with the views and opinions of the researcher – which is noted by Morgan (1998) to be a risk in an inadequately planned and moderated group.

Krueger (1998a) explains that the researcher must be attentive to the dynamics of the group and respond to dominant or reclusive participants, as well as being attentive to more disruptive potential behaviours such as disrespectful or personal attacks. In the focus groups in Phase 2, this was achieved in three ways. The first method employed to attend to these potential issues was the focus group code of conduct, which was read through with the group at the outset of discussion and asked participants to respect the views of other members of the group, to talk one at a time, to allow others to contribute, and to keep the focus group discussion confidential. In addition to this, the moderator guide contained prompts which intended to counter reluctance to answer key questions by framing the question in a different way, asking what other people thought if only one person had answered, or by probing for further or more specific information. These prompts were combined with the technique of pausing after posing a question to allow people enough time to think through their answer or for less dominant members of the group to have their say, as suggested by Krueger (1998a). This method of pausing and probing proved successful in eliciting lively discussion around the research questions and the wider topics discussed in the groups.

Discussion moved first through a group introduction and exploration of individuals’ travel habits. Barbour (2007) has noted that it can be useful to have an initial ‘warm-up’ exercise to get the group settled into the format of the discussion to follow. Reflecting upon this, the initial section of the groups provided this function. This opening section also performed the function of getting the group thinking about their daily travel, and provided some data on people’s perceptions of their regular mode.
Second, the groups talked through subjective journey experience specifically on the bus (with the car user group asked to imagine a routine journey by bus the next day), and also addressed what carried objects and mobile technologies participants may (or may not) use on a journey. This section provided information on how people experience their journey, and how they perceive the bus experience in relation to the activities they might engage with on a journey. Third, the groups talked through a comparison between three modes of transport: the bus, the car, and the train. Here the groups compared aspects of each mode and discussed similarities and differences in journey experience that result. This section generated data on people’s comparative perceptions of each mode, and further served to highlight specific issues surrounding the socio-spatiality of the bus and its effects on subjective journey experience. Fourth – and finally – the groups moved on to discuss the value of time that they spend travelling and also issues surrounding individuals’ responsibility for their subjective journey experience during this time. This section provided information on the relevance of subjective journey experience in the context of the wider bus service, and further explored participants’ views on the ‘provisions’ of the bus environment in terms of it being conducive to travel-time activity.

4.2.11 Data analysis

Analysis of the data in Phase 2 was conducted following the same methodology of thematic analysis (see: Braun & Clarke, 2006) from Phase 1, as described in Section 4.2.7.

To maintain comparability between the datasets, the codes from Phase 1 were brought forwards and applied to the focus group data. Additionally, an extra set of codes was employed to analyse the data in relation to the key findings from Phase 1, and allow cross-referencing between the two datasets. Once the coding was completed, the datasets were again deconstructed and re-compiled thematically following the same procedure as in Phase 1. This provided several thematic datasets related to the different themes which emerged during analysis.
In performing its mediatory function between Phase 1 and Phase 3, Phase 2 aimed to establish more precisely the key areas of enquiry in relation to travel-time use on the bus which the survey could test more widely. These key areas of enquiry proved to be generally aligned with the original themes drawn from the literature review: perception of the bus; the creation and form of bus journey experiences; travel-time activity and carried objects; and the sociality of the bus. The data surrounding these themes was then used to construct the question protocol for the survey, and this is discussed in greater detail in the following section.

Finally, the discussion in the focus groups was intended to provide an analysis of the ways in which people conceptualise travel-time use and journey experiences in everyday language – with the aim being to inform the language used in the survey and aid in clarity. The analysis of the data from both Phase 1 and Phase 2 demonstrated that rather than there being collectively bespoke or idiosyncratic ways of conceptualising travel-time and journey experience which are specific to bus passengers (i.e. a ‘bus jargon’), the language used to articulate the journey was relatively varied, general, and ‘everyday’. Ampt et al. (1985) note that questionnaires should ideally ‘use common language’ (p. 27) and avoid technical terminology. Reflecting on this, common terms of description/explanation for different aspects of the bus journey experience were identified from the qualitative data, and compiled for use in the survey questions. This approach to question design was refined further during the design stages of Phase 3 (see: Section 0, p. 132).
4.3 Phase 3 – quantitative data collection

Building on Phase 1 and Phase 2, the format of the survey was to generate data from passengers on their travel-time activities and journey experiences as they occurred during the journey, whilst also asking questions about people’s wider perceptions of the bus, their use of time, and their relationship with the specific socialities created within and between passengers on the bus. This meant that a post-hoc survey of passengers’ recollections of travel-time activity and journey experience would not be sufficient in this phase, and therefore a survey design and administration protocol was constructed based upon more traditional on-board travel surveys (see: Schaller, 2005; Passenger Focus, 2010b) to allow this experiential data to be collected in-context. The question protocol for the survey is discussed in greater detail in Section 0 (p. 132), and a copy of the questionnaire form used in Phase 3 is presented in appendix 9.6 (p. 355). This section explains the process of designing and administering the questionnaire survey, which was successful in generating on-board responses from 840 bus passengers on five routes in the Greater Bristol area.

4.3.2 Survey rationale

This phase incorporates relevant aspects of existing studies into travel-time use and journey experience, using insights from both quantitative and qualitative in its design. In this way it draws together the diverse strands of theory to assist in generating a fuller picture of travel-time activity and its relationship with journey experiences on the bus. The academic literature explains that bus users most commonly conceptualise their bus journey experiences in an episodic and often negative manner, in which specific incidents experienced by the passenger are retained and then extrapolated to wider generalisations about bus travel (Guiver, 2007). Reflecting upon this, what is suggested is that there is thus a distinction between the immediate experience of the journey and the ways in which it is later reconstructed and given meaning by passengers. Phases 1 and 2 sought to explore passengers’ conceptualisations through qualitative post-hoc recollection/reconstruction of their previous travel-time experiences. In Phase 3, the survey aimed to focus on collecting data about
passengers’ use of time and journey experience *in-situ* — as these experiences occur. Thus, following this rationale, empirical data in this thesis was generated both on passengers’ more detailed explanations of travel-time use and experience (provided by the qualitative data), and also on the immediate experience of “being the passenger”. Earlier in this chapter, reference has been made to the different layers of data that are desirable in adequately exploring the subjectivity and contextuality of journey experience. This layering of different forms of data collected through the mixed-methods approach has allowed for an analysis of the ways in which passengers immediate experiences of travel-time compare to more detailed but reconstructed discourses of the journey. This is central to the development of the discussion in Chapter VI.

The most appropriate method through which to achieve this aim is through an on-board survey. By conducting the survey on-board the bus during the journey, data can be generated from passengers as they experience their journey. Schaller (2005) discusses the use of on-board surveys, and notes that such surveys are commonly used by transport providers, transport authorities, and other stakeholders who have a need to collect information about a wide range of service-related topics: from passengers’ destinations and purposes for travel through to their satisfaction with — and perception of — services (Ibid). Stopher (1985) further notes that on-board surveys may be either participatory (i.e. the passengers are interviewed in some way by the researcher during their journey) or observational (i.e. the researcher observes the bus environment and records what they see, but do not involve passengers directly in the collection of data).

For this thesis it was necessary to employ a participatory on-board survey; it was insufficient in this context for the researcher to merely observe the activities of passengers, and their active involvement is required to generate data on their experiences and subjective perceptions of their journeys. There are two principal ways in which participatory on-board surveys can be conducted. First is a self-administered survey in which participants are offered a survey form and asked to fill it in and return it to the researcher. Second is a personal interview in which the researcher asks the participant the questions in person in an interview format, and records their answers.
on the survey form (Schaller, 2005). Figure 11 below explains the strengths and weaknesses of each of these options.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Self-Administered</th>
<th>Personal Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Need fewer surveyors to obtain a given number of completed surveys because multiple respondents can complete the survey simultaneously</td>
<td>• Higher level of respondent understanding of questions</td>
<td></td>
</tr>
<tr>
<td>• Can potentially survey all riders boarding a bus or train; no need to select a sample from among those boarding</td>
<td>• Ensures that all questions are answered</td>
<td></td>
</tr>
<tr>
<td>• Respondents may misinterpret questions (measurement error)</td>
<td>• Obtains responses from persons with limited literacy skills</td>
<td></td>
</tr>
<tr>
<td>Weaknesses</td>
<td>Respondents may not complete the entire questionnaire (item nonresponse)</td>
<td></td>
</tr>
<tr>
<td>• May result in lower response rate than personal interviews</td>
<td>• Can be time-intensive for surveyors; may need larger number of surveyors</td>
<td></td>
</tr>
<tr>
<td>• Depends on ability of respondent to read questionnaire</td>
<td>• Possible bias from nonrandom selection of riders interviewed</td>
<td></td>
</tr>
<tr>
<td>• Difficult to use branching and skip patterns</td>
<td>• Cost</td>
<td></td>
</tr>
<tr>
<td>Situations likely to be used</td>
<td>Projects needing large number of respondents</td>
<td></td>
</tr>
<tr>
<td>• Same questions asked of all respondents</td>
<td>• Short questionnaires</td>
<td></td>
</tr>
<tr>
<td>• Relatively long questionnaires</td>
<td>• Need relatively smaller number of completed surveys</td>
<td></td>
</tr>
<tr>
<td>Implications for survey planning</td>
<td>Survey instrument must be well designed, with clearly worded questions and clear navigation</td>
<td></td>
</tr>
<tr>
<td>• Length of survey may need to be minimized</td>
<td>• Respondents unable to complete survey due to language, literacy, and/or disability</td>
<td></td>
</tr>
<tr>
<td>• Need to interview riders where they will take the time needed to complete the interview</td>
<td>• Use as adjunct to self-administration at choice of respondent</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 11 - Characteristics of self-administered and personal interview surveys (Schaller, 2005, p. 11)**

Reflecting upon Figure 11, in Phase 3 it was necessary to collect data from a large sample of bus passengers whilst maintaining a sufficient depth to the questionnaire to enable to qualitative findings generated in Phases 1 and 2 to be explored and tested effectively in a quantitative context. The sampling strategy for Phase 3 is discussed in finer detail in the following section, however for the survey it was determined that data would be collected from all bus passengers on the selected routes over the age of 16. Therefore a self-administered on-board intercept survey was decided upon based on the need to collect data from a large number of participants simultaneously whilst eliminating the need to sample participants purposively whilst on the bus. The self-
administered format allows the same questions to be asked of all participants, and enables a single researcher working alone to collect a large volume of data – which would be prohibited by practical constraints if a personal interview format were adopted (Schaller, 2005).

Whilst these strengths informed the decision to adopt this specific format, self-administered surveys have weaknesses which meant that careful consideration was taken in the design and administration phases. A robust questionnaire form and a simple, flexible administration protocol were essential to attend to several issues, namely: the greater potential for error in participants’ self-completed answers, a lack of comprehension of the questions, the specific temporal qualities of the survey questions, and the depth of data that the questionnaire form needed to generate. The steps taken to attend to these issues are explained in greater detail in the discussion of survey design and administration in Section 0 (p. 132).

4.3.3 Sampling strategy

As explained in the research strategy (see: Section 4.1), the quantitative survey tested the findings generated in phases 1 and 2 to explore to what extent the qualitative data represents the opinions and experiences of the wider bus user population in Bristol, UK. Therefore when determining the sampling frame employed in Phase 3 the principle aim was to construct a sampling strategy which could survey a broad cross-section of the bus user population without imposing a purposive approach to the selection of participants. The target population in Phase 3 is not a static sample in that the passengers on buses are progressively moving through the spaces of the bus network, however using the bus itself as the location for the survey has the advantage of a “captive sample” of passengers situated within the vehicle for a defined period of time. Therefore the bus vehicle itself was taken to be an advantage that could be used in encouraging participation in the survey, providing a working schedule by which the timings of the survey could be panned, and aiding in the process of sampling.
The two key factors in constructing the sampling strategy for an on-board survey were selecting the time of day for the administration of the survey, and selecting the routes on which to administer the survey, as suggested by Schaller (2005). The decision was taken to focus the administration on scheduled local bus services operating within Bristol (with two routes extending beyond the city into the rural-urban fringe) (see: Map 1, p. 127). Timetabled local routes were selected which had an adequate amount of time along their course to allow for the surveys to be administered and completed comfortably within the scheduled duration of their journey, defined in the survey design stages as a 30 minute minimum journey time (see: Section 0, p. 132). The decision to focus upon local services only and to not sample other types of bus service (such as express coach services and demand responsive services) was taken to maintain comparability between routes across Bristol, and to enable to construction of a survey design which could ensure the response rates needed to generate an adequate sample within the time-frame of the survey period.

Five routes were selected across Bristol; these routes represented both a reasonable geographical coverage of the Bristol area, and furthermore displayed specific characteristics which represented the potential to capture a range of differing journey purposes within the sample population. The routes were selected to be broadly representative of the wider Bristol bus network, and this thesis holds that this selection has a good generalisability. These routes and their specific characteristics are presented in Table 1 (p. 131), and their geographical coverage of Bristol is displayed in Map 1 (p. 127). However, as Schaller (2005) points out, the selection of a route (or number of routes) places inherent bias in that sample, creating a theoretical population that is bounded by the potential participants that the route selection will limit the researcher to. Therefore while the routes selected sample a broad cross section of bus users in Bristol, in strict terms the theoretical population for this survey can be defined as the user population that utilises the routes presented below.
Map 1 - Survey bus routes
Bus Tales: Travel-time use, technologies, and journey experiences on the bus
### Route Characteristics

<table>
<thead>
<tr>
<th>Route no.</th>
<th>Route termini</th>
<th>Route characteristics</th>
<th>Approx. duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>Cribbs Causeway, Hengrove Depot</td>
<td>A route connecting the northern and southern suburban extremes of Bristol through the city centre. This route serves both some of the most economically and socially deprived areas of the city (for example, Hareclive on the southern fringe is in the bottom 1% of LSOAs in the national deprivation index), and also more affluent areas such as Cotham and Bishopston. It provides access to the Cribbs Causeway shopping centre from south Bristol.</td>
<td>90 mins (45 mins termini – city centre)</td>
</tr>
<tr>
<td>U5</td>
<td>UWE Frenchay Campus, Bristol City Centre</td>
<td>A UWE U-Link route (open to the general public) connecting the UWE Frenchay campus to the city centre via several of the more affluent western suburbs of the city, including Westbury on Trym, Henleaze, Clifton, and Redland. Chosen to provide a sample of the student population and also as a quasi-orbital route serving the west and north of Bristol.</td>
<td>45 mins</td>
</tr>
</tbody>
</table>

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19 Socioeconomic characteristics in this table sourced from: Bristol City Council (2010) and The Bristol Partnership (2011)
<table>
<thead>
<tr>
<th>Route no.</th>
<th>Route termini</th>
<th>Route characteristics</th>
<th>Approx. duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>309/310</td>
<td>Thornbury, Bristol Bus Station</td>
<td>A route connecting the city centre to the rural-urban fringe terminating in the town of Thornbury – approximately five miles outside Bristol. The route passes through the green belt villages of Almondsbury and Alveston. Chosen as a route with distinct end termini facilitating journeys into and out of the city for passengers from the outer northern reaches of Greater Bristol.</td>
<td>50 mins</td>
</tr>
<tr>
<td>318</td>
<td>Cribbs Causeway, Keynsham</td>
<td>A route that crosses Bristol’s green belt and connects to the satellite town of Keynsham to the south east of the city. The route passes through several important destinations: the Kings Chase shopping centre, Frenchay hospital, UWE Frenchay campus, Bristol Parkway station, and Cribbs Causeway shopping centre. It is an example of one of the few orbital routes in Bristol. It is the longest route included in the survey, and serves many of the suburbs in the east and north of the city, passing through areas with a range of socioeconomic characteristics.</td>
<td>100 mins</td>
</tr>
</tbody>
</table>
Table 1 - Survey bus route characteristics

The U5 route was selected specifically as it is a university-operated service (whilst still being open to the general public). By including this route a sub-set was created in the data which was broadly aligned with the sample from the qualitative phases. On each of these routes the sampling strategy followed was to sample from 8:00am until 6:00pm for 2-3 weekdays on each route dependent upon response levels (to allow for the potential for lower patronage on some routes compared to others). Routes were ridden by the researcher from terminus-terminus and all passengers who appeared over the age of 16 on the route were approached and asked to participate at the point of administration. Whilst the aim was to randomly sample bus passengers on all 5 routes, the lower passenger densities on some of the routes (318 and 310) meant that at certain times it was necessary to focus more heavily on these services. This self-administered approach to participatory on-board sampling was successful in collecting data from a total sample of 840 bus passengers across the five routes.

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20 This method allowed the researcher enough time to administer the survey and collect responses, and also to eliminate the difficulty encountered when attempting to connect to different services or other buses at another point on the same route.
4.3.4 Survey design and administration

Administering a self-completion survey to a potentially full bus of passengers presents a number of challenges to be overcome in the design and administration of the questionnaire forms. At the outset of this section, it was emphasised that in Phase 3 it was necessary to generate data on passengers’ travel-time activities and journey experiences in real-time as they occurred on the bus. Therefore the survey design also had to contend with the need for passengers to have already engaged with some form of travel-time use or activity by the time of survey administration – and furthermore to have experienced enough of the journey to be able to provide meaningful data on it – whilst still completing the survey and returning it to the researcher during their journey. The survey design at the broadest level was based on the framework of the 2010 National Rail Passenger Survey (NRPS) (Passenger Focus, 2010a; Passenger Focus, 2010b). Reflecting on discussion in Chapter III, this phase of data collection built on existing research into travel-time use on the train by Lyons et al. (2007; 2011), which was successful in generating data on rail passengers’ travel-time activities. This was utilised as the basic framework around which the questions informed by the qualitative findings were constructed. In doing so, Phase 3 incorporated elements of existing research tools and developed these in the specific context of travel-time use on the bus.

Schaller (2005) notes that the most common routes by which self-administered surveys are conducted on-board public transport vehicles is through either offering the questionnaire to the individual in person at the beginning of the journey, leaving questionnaire forms on the vehicle for passengers to complete by themselves, or by handing passengers a form as they alight to be filled in and mailed back at a later date. None of these options are suitable for the context of this methodology. Handing passengers a form as they begin their journey has the potential to strongly taint both their travel-time activities and journey experiences, and additionally there is a prohibitive complexity in explaining to passengers the need to wait and experience the journey before completing the form. Leaving forms for passengers to pick up and complete themselves creates the same issue, and additionally has the risk of encouraging a considerably lower response rate (Stopher, 1985). Finally, handing
passengers a form at the end of their journey and asking them to send it back to the researcher destroys the aim of collecting data in situ, leading to the post-hoc recollections that the survey aimed to avoid.

Therefore both the questionnaire forms and the administration protocol for Phase 3 were of a bespoke design constructed to suit the specific aims of this study, whilst maintaining the positive characteristics of on-board surveys for which they were chosen. On-board surveys should be kept clear and concise, and the questions posed should be relatively short where possible (Schaller, 2005). In the specific context of Phase 3, the passengers were required to complete the survey during the journey, and therefore there was an imperative to make the questionnaire form readily understandable, navigable, and easy to fill out in the bus environment – which is likely to be spatially restrictive and potentially “jerky”. These issues are considered below.

**Questionnaire form design**

The questionnaire form used in the survey is included in appendix 9.6 (p. 355). Several considerations were important in the design of the form: the ordering of the questions, the wording of the questions, the form of response that was required from participants, and the physical composition of the form (paper type/size, etc...).

McFarland (1981) explains that the ordering of questions in a survey requires specific consideration because it can have an influence upon the responses given by participants. Reflecting upon this, the question order was designed to move from more general questions at the outset towards more specific questions at the end:

> ‘One common recommendation for survey construction is that questions which ask for a general evaluation on a particular issue should precede questions about its more specific aspects’ (Ibid, p. 209).

The questions were ordered so that preceding questions could not influence the responses to later questions – for example the first question seeks to ask passengers about their *immediate* general perceptions of riding the bus, and thus it is deliberately
placed first to eliminate the risk of later questions altering this immediate reflection. Due to the aim of collecting data on the experience of the journey and travel-time use, the question order on the form was designed to present the experiential and activity questions near the beginning of the form – to minimise as far as possible the impact of taking part in the survey on the journey experiences of participants. Hence also, the questions asking for personal information were placed at the end of the survey because these were unlikely to be influenced by responses to other questions, as suggested by Stopher (1985). This flow was the critical consideration and largely determined the order of the questions.

Questions were worded simply, with the intention that they could not be misunderstood. However, given the nature of the survey in testing the qualitative findings, it was sometimes necessary for additional depth to be added to the questions to fully explore an issue. The list of travel-time uses and carried objects presented in questions 3 and 4 (see: appendix 9.6, p. 355) was constructed from those identified in the qualitative discourses generated in Phases 1 and 2, with additional common activities sourced from in the NRPS (Passenger Focus 2010b) (see: Chapter V). Responses to experiential Likert scales were designed to be mutually exclusive – although in actuality the subjective nature of many of the discursive terms surrounding the experiential aspects of the journey meant that there was a degree of uncertainty around these. This effect is discussed further in later discussion in Chapter VI.

The mobile and often jerky nature of the bus environment meant that the best form of response from participants was through making a mark as opposed to written answers. Most questions required a tick or a cross, however several questions had the option to fill in additional words or phrases if necessary, and also space was reserved on the final page for any additional comments that participants wished to make. Physically, the form was presented in a large font (considerably larger than that used in the NRPS) to increase clarity, and to help attenuate issues arising for participants with any visual impairments. The available examples suggest that a bold font is appropriate for the questions (see: Schaller, 2005; Passenger Focus, 2010b; Ampt et al. 1985), and in the questionnaire form key words and questions were highlighted in this manner. Finally, the questionnaire was printed on heavy cardstock paper. This was to allow the
questionnaires to be filled out without a place on which to rest them whilst writing/marking. Using a heavier paper meant that the survey form would not simply bend when pressure was applied to it, meaning that it could be written upon with greater ease on the bus.

**Questionnaire form administration**

As discussed above, it was essential to capture the travel-time activities and journey experiences of passengers as they occurred. Therefore it was necessary for passengers to have engaged in activity during the journey and been on the bus long enough to have experienced the journey. Schaller (2005) notes that questionnaire forms are typically handed to passengers as they board or as they alight – and this is true of the NRPS (Passenger Focus, 2010b). In Phase 3, the administration of the questionnaire forms was argued to be a potential interfering factor in participants’ journey experiences, and therefore it was not possible to distribute them as passengers boarded the bus.

An administration protocol was designed in which the researcher would administer the survey once passengers had been on the vehicle for a period of at least 10 minutes, to provide enough time for travel-time activity to have occurred. This necessitated that an administration point could be chosen at which the bus was carrying the maximum number of passengers which had all been on the bus for at least 10 minutes, and yet still would have enough time remaining on the bus to complete the questionnaire form before their destination. To achieve this, scouting journeys were performed on all buses. On these journeys, the researcher would board a bus on the route in question and ride it from terminus-terminus, recording levels of patronage along the route and marking significant destinations for boarding and alighting. Repeated over several journeys, average patronage levels were calculated and plotted graphically; from these, suitable periods for administration were identified. An annotated example of this is presented in Figure 12 - Sample route profile used in survey plan (p. 137).
Route profiles were constructed for each route and from these the administration periods were defined. Once the administration point was reached on a route, each passenger on the bus was approached and asked to fill in a questionnaire. From this point the researcher remained at the front of the bus and collected the completed questionnaire forms as passengers reached their destinations. At the point of return, participants were also offered an information booklet outlining the aims of the research and explaining in more depth how the information that they had provided would be used. Finally, the completed forms for each route were kept together and indexed with a unique identification code, along with other pertinent route data (which included the service number, the direction of the journey, the time of day, the punctuality of the service, and average patronage levels).
Figure 12 - Sample route profile used in survey plan

- **Peak patronage**
- **Final time of administration**
- **Average patronage levels**
- **Necessary 10 min “activity period”**
- **Survey completion period**
- **Period of opportunity to administer survey**
- **Location of bus at intervals along route**
Passengers with barriers to participation

Due to the self-administered format, there were several issues in relation to participation for some potential participants. Key issues were: travel sickness, visual impairments, and language barriers.

The experience of travel sickness whilst on the bus was a major barrier to participation for some passengers, and on several occasions the survey was refused for this reason. This issue had been highlighted in the qualitative data in phases 1 and 2 and so was anticipated. Some participants mentioned that they experienced travel-sickness and yet attempted the survey despite this, whereas other passengers declined to participate. The strongly negative experience of travel sickness meant that there was little reasonable opportunity for the researcher to encourage participation, and thus passengers that declined for this reason were not pressed further to participate.

Passengers with visual impairments or language barriers to participation were offered the opportunity to participate through a personal interview with the researcher. This proved successful on a number of occasions in securing participation; however, the act of interviewing a participant raised issues in-and-of itself. Reading through the form with a participant took significantly longer than a self-administered survey, and therefore there was the potential that other participants could finish and wish to alight before the researcher had concluded the personal interview. Furthermore, it was only possible to conduct one of these interviews on a particular journey, and therefore if two or more passengers had a visual or language barrier, at least one would not be able to participate for this reason. It should be noted that the majority of passengers who gave this reason for refusal however were not willing to take part in a personal interview either.

4.3.5 Analysis plan

Following collection of the data, the responses on the survey forms were transferred into a database on the statistical analysis software package, SPSS. Before embarking on
the analysis, the dataset was checked for errors. Missing cases were assigned the value 99 and the dataset was further checked for incorrectly entered cases. Analysis of the data for Phase 3 followed a four-step process, introduced in Table 2 below:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Analysis of descriptive statistics</td>
</tr>
<tr>
<td>2</td>
<td>Chi-squared ($\chi^2$) significance test to identify relationships between variables</td>
</tr>
<tr>
<td>3</td>
<td>Ordinal logistic regression analysis to explore relationships between variables and identify potential predictor variables</td>
</tr>
<tr>
<td>4</td>
<td>Comparison of quantitative findings with qualitative findings</td>
</tr>
</tbody>
</table>

Table 2 - Overview of quantitative analysis plan

The initial stage of the analysis plan was to explore the descriptive statistics for the dataset. The descriptive statistics provided the basic sample characteristics, and these are presented in the following section.

Following the descriptive analysis, the chi-squared ($\chi^2$) test for statistical significance was used to explore correlation and identify relationships between the variables. At this stage initial findings were compiled based on the $\chi^2$ analyses, and these are reported in Chapter V.

**Ordinal logistic regression**

Stage three involved modelling the data using five ordinal logistic regression models. These were constructed to further explore the relationships identified in the data, and
to identify predictor variables. An ordinal regression analysis has two desirable advantages over bi-variate analyses such as $\chi^2$ in this context: they allow multiple independent variables to be included in the analysis simultaneously, and also allow for the direction and the magnitude of the relationships to be estimated (see: Pallant, 2007). This means that the association of the independent variables with passengers’ experiences and perceptions (the dependent variables) could be explored in greater depth. In selecting the correct type of regression for use, the survey dataset is comprised of categorical variables, and therefore a logistic regression analysis was the appropriate choice – as opposed to a multiple regression analysis which would require the variables to be continuous (Pallant, 2007). Within this, and ordinal regression was chosen over a binary regression because the dependent variables had more than two categories (or values). An ordinal regression analysis was selected in preference to a multinomial regression analysis because the dependent variables in each case were ordinal categorical variables – that is to say that the values can be ranked, but that it is not possible to say that the intervals between each value category are the same \(^{21}\) (Norušis 2011).

There are several caveats to the use of ordinal regression. Pallant (2007) explains that the data must be checked to ensure that there are an appropriate proportion of cases to predictors. If it is the case that some predictors have too few cases (or no cases at all), then this can generate an error in the parameter estimates. Another key issue is that of multicollinearity. This is a situation particular to regression analyses in which two independent variables are correlated – when one of the underpinning assumptions of regression analysis is that the variables are independent of one another (Farrar & Glauber, 1967). Care was taken when constructing the models to minimise the inclusion of independent variables with any association to one another, and this is discussed further in Chapter V. Finally, any outliers should be removed from the model. In the process of analysis attention was paid to doing this to avoid the distortions to the model that these can produce (Norušis 2011).

\(^{21}\)Norušis (2011) notes that many variables derived from surveys are ordinal. In the specific context of this survey, the dependent variables were the questions containing Likert response options (Q.1, Q.5, and Q6 see: appendix 9.5, p. 352). Therefore it is possible – for example – to rank the responses to Question 1 in order from “I really don’t like it” to “I really like it”, however it is not possible to say that the relative strengths of feeling that form the thresholds between each of the categories are the same.
It should be noted that whilst an aim of the ordinal regression analysis was to identify predictor variables, the scope of the dataset was restrictive to the models’ predictive capabilities. More data would need to be generated to validate the models reported in Chapter V. The primary function of these analyses was to further explore the relationships between the variables, as opposed to forecasting future outcomes. Ordinal regression is employed here for its explanatory function as opposed to its predictive function.

The final stage of the analysis plan was to compile the findings from the quantitative analysis and to compare these to the findings from the qualitative analyses in Phases 1 and 2. The key survey findings generated from the $\chi^2$ analyses and the ordinal regression analyses served in some cases to confirm the qualitative findings, in others to show a different perspective, and furthermore generated additional findings that the qualitative phases had not identified. The results from the analysis of the quantitative data are presented in Chapter V, and developed further in relation to the qualitative findings and existing research in Chapter VI.

### 4.3.6 Sample characteristics

The sample characteristics generated from analysis of the descriptive statistics are presented below, alongside data which explains how closely these align with national travel statistics. In Section 4.2.5 the differences in the survey routes were discussed. The UWE operates its own service – U-Link – and there is a distinction between this heavily student-dominated user population and the wider bus user population in the Greater Bristol area. Thus, it should be noted that the U5 has predominantly young passengers aged 16 – 24, and the majority of these are travelling for the purposes of education, which skews the sample. It has been explained how this route was chosen specifically to create this sub-set within the data, which is most closely aligned demographically with the qualitative data. This data makes comparison possible between the responses of younger people from the UWE demographic and the responses of younger people travelling on other routes, which contextualises the
 qualitative data and provides support for its wider relevance. For clarity, where a significant difference between the UWE respondents and the respondents surveyed on other services is observed, the sub-set results are presented alongside the complete results and referred to as a “UWE Effect”. In every analysis reported in this thesis, the UWE Effect has been tested, and is reported where it has a significant effect upon the results.

Chart 2 - Survey sample characteristics: Gender (n = 802)

For all routes surveyed, 55.7% of passengers were female and 44.3% were male. The UWE Effect hides a greater gender disparity on the other public routes. As Chart 2 above demonstrates, on the U5 gender is almost equal (n = 270); where for the non-UWE routes, the gender split becomes more marked (n = 532). The most current national figures for gender reported in the BPSS quarterly factsheet do not present this demographic information in the same way (focussing on amount of trips per year by gender as opposed to the number of individuals surveyed by gender), however their findings are consistent with the finding that more women are using the bus than men:
‘Women are more likely to use local buses than men. Women make on average 83 local bus trips per year compared with 63 among men in 2008’ (DfT, 2010b, p. 1).

Age data was collected using six ordinal categories; the figures for these categories are presented in Chart 3.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>All/%</th>
<th>Non-UWE services/%</th>
<th>UWE services/%</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-24</td>
<td>57.2</td>
<td>43.2</td>
<td>84.9</td>
</tr>
<tr>
<td>25-34</td>
<td>14.4</td>
<td>16.3</td>
<td>10.7</td>
</tr>
<tr>
<td>35-44</td>
<td>5.2</td>
<td>7.5</td>
<td>0.7</td>
</tr>
<tr>
<td>45-54</td>
<td>6.3</td>
<td>8.8</td>
<td>1.5</td>
</tr>
<tr>
<td>55-64</td>
<td>7.5</td>
<td>10.9</td>
<td>0.7</td>
</tr>
<tr>
<td>65+</td>
<td>9.3</td>
<td>13.3</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Chart 3 - Survey sample characteristics: Age (n = 804)

This data shows that a large proportion of the bus user population is aged 16-24, however this data is skewed by the UWE Effect – the vast majority of passengers on
the U5 were students aged 16-24. On the U-Link service, 84.9% of responses came from passengers aged 16-24 (n = 271), on the other routes, 43.2% of responses came from this age group (n = 533). This demonstrates that the U5 responses are closely aligned in terms of age to the respondents in qualitative phases.

Chart 4 below gives the national figures for the split of age groups on the bus. National statistics again present the data on the age demographic in a different form, listing the number of trips per annum by passengers in different age categories, as opposed to giving a straight figure for the percentage split by age (DfT, 2010b). The BPSS data has a finer level of resolution (8 age categories), making direct comparison problematic. The report notes however that younger people are making the most trips, followed by those aged over 60, and the shape of the pattern of the non-university routes compared to the survey results from the university routes shows greater similarity, however the survey data suggests that the routes surveyed carry a proportionately higher number of younger passengers than the national average.

Chart 4 - National figures for the age of bus passengers (DfT, 2010b, p. 1)
Data relating to journey purpose was collected using 9 categories which broadly align to those used in the BPSS. The results for all passengers surveyed are presented in Chart 5.

### Chart 5 - Survey sample characteristics: Journey purpose (n = 803)

These figures show that education is the most common journey purpose followed by journeys for work and shopping. Again, the UWE Effect is present in this result; when the U5 passengers are removed from the analysis, journeys for work are the highest proportion at 35% (n = 532). On the U5 service, the majority of passengers are on the bus for the purpose of accessing educational facilities (n = 271).
The data describes the proportions of journey purpose between different passengers; however the national BPSS statistics for journey purpose present the journey purpose data as a proportion of individual trips per person per annum, in comparison to the car. The fact that national data are described differently once more makes a direct comparison difficult. The suggestion from the survey data however is that there is close alignment between the data for non-university routes and the national statistics in terms of shopping and educational trips, however the national statistics provide a far lower figure for the proportion of work trips, which the report details as constituting 19% of an individual’s bus trips per annum (DfT, 2010b, p. 2).

Collecting data on car availability allows the effect of choice on passengers’ perceptions and experiences of bus services to be considered. Car availability was used as a proxy for choice, and was determined by asking participants whether they had access to a car for that specific trip they were making. This would thereby indicate that they were on the bus through choice, rather than having no alternative motorised option.

![Car availability (for current journey)](chart)

<table>
<thead>
<tr>
<th>Car availability (for current journey)</th>
<th>All/%</th>
<th>Non-UWE services/%</th>
<th>UWE services/%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>20.4</td>
<td>25.9</td>
<td>10.1</td>
</tr>
<tr>
<td>No</td>
<td>79.6</td>
<td>74.1</td>
<td>89.9</td>
</tr>
</tbody>
</table>

Chart 6 - Survey sample characteristics: Car availability (n = 768)

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22. It should be noted that whilst car availability is used in this analysis to provide an indication, choice was not addressed directly by any of the questions in the survey and therefore only inferences can be made concerning this factor.
Chart 6 demonstrates that the majority of passengers on the bus did not have a car available for that journey, and suggests that the greater proportions of passengers are on the bus out of necessity, as opposed to them having made a choice from an alternative. The data demonstrates that passengers travelling on the U5 route have lower car availability on average than those travelling on the other survey routes (-15.8%), and on non-university routes one in four people did have the option to use a car for that journey. The university result will have been influenced to a certain degree by the restrictions placed upon car ownership in the accommodation rules of the university. The statistics suggest that for the large majority of participants, the bus was not the mode of choice, but rather of necessity.

4.3.7 Post-survey reflections and issues

There were a number of practical and methodological issues raised during the conduct of the survey, and these are discussed briefly below:

Administering survey forms on a moving vehicle

This was a challenging aspect of the methodology, and the movements of the vehicle require the researcher to take particular care when moving throughout the vehicle. It is not always possible to be aware of approaching corners or stops, and so care must be taken when distributing survey forms to avoid injury to the researcher or passengers. It is advisable to move from seat to seat where possible, and to ensure that handholds are readily available when standing.

Encouraging participation

The survey forms were administered to every individual on a bus, and to ensure a good response rate it was necessary to involve as many passengers as possible on each journey. Experience showed that response rates were highest when the researcher remained on the bus from the outset of the journey, giving passengers time to be aware of the presence. Furthermore response rates were most favourable when administration commenced from the front of the vehicle, meaning that the researcher
was in full view of potential participants throughout the process. Research materials were handled overtly with the intent of making the purpose of the researcher’s presence as clear as possible. A person moving around a vehicle and speaking to each passenger in turn was not a social norm on the buses surveyed, and so making the researcher’s intent as obvious as possible through the handling of the research materials and the explanation of the research was a key tool in the process of administration. There was some evidence that potential participants would follow the lead of other passengers (i.e. if one person refuses, the group around them is more likely to refuse, and vice versa), therefore the selection of an initial “seed” participant was usually predicated on their observed manner in the period prior to administration. During the time before the administration period it is advisable to observe passengers and select individuals who appear most “socially engaged/comfortable” in the bus environment.

**Countering low patronage**

Patronage is affected by many factors including the route, weather, and time of day. This meant that it was not possible to guarantee a consistent return on surveys, and indeed some trips yielded large numbers of responses where others would produce only a few. It is suggested that in future additional scouting journeys are undertaken with this specific issue in mind, to enable efficient planning/timetabling. An effective method would be to define a contingency plan for particularly low patronage on any route, whereby the researcher would switch to another service and then return to the original route at a time of higher patronage. This would keep response rates high and consistent; however the counter-argument to this is that passengers on low patronage buses would not be surveyed.

**Defining response rates**

Whilst the approximate response rate for the survey was >85%, nonetheless no data was collected on the number of passengers that refused the survey. Therefore it might

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23 To give a non-scientific example, the survey provided anecdotal evidence that simply smiling at different passengers during the period before administration was an effective method of judging their suitability as the initial participant. Those passengers that smile back were generally more willing to be the first participant, and the act of smiling ignited a spark of rapport with which to work.
be advisable to record this information as additional data to improve the accuracy of this figure.

4.4 Chapter summary

This chapter has explained in considerable detail the methodology followed in this thesis. Starting with the research questions, discussion has moved to consider the ontological and epistemological position adopted in this thesis; argued the suitability of the mixed-methods approach to the topic of travel-time use and journey experience; and explained the three phases of data collection undertaken in this research. The designs of the two novel methods for collecting data have been successful; the online Bus Tales discussion generated rich qualitative data that has been useful in addressing the research questions, and furthermore in the design of the subsequent phases. The survey was designed and executed on a large scale, and has been successful in securing a broad and extensive sample of bus passengers following a bespoke administration format well-suited to exploring travel-time activities and journey experiences.

The following chapters first present the findings from the qualitative and quantitative data respectively, and next move to discuss these findings in relation to the theoretical literatures discussed in the literature review. These latter chapters of the thesis centre discussion on the research questions; they consider how passengers are spending their travel-time on the bus, how their travel-time activities interact with and influence their journey experience, what differences exist between the activities and experiences of different passengers, and furthermore what relevance these findings have for stakeholders.
5.0 Integrated results from qualitative and quantitative data collection

This chapter presents the findings from the three phases of data collection detailed in the methodology. The sections in this chapter are structured around the research questions, with the findings that are relevant to addressing each question presented together. In each section, the qualitative findings are presented first, followed by the quantitative findings. In following this format, this chapter develops the discussion of the process of data collection explained in the methodology, justifying how the findings from the qualitative phases necessitated the subsequent quantitative phase, and considering the relationship between the two forms of data and the findings that these generate. Following this, in Chapter VI the qualitative and quantitative findings are drawn together, and their relevance to each research question interpreted through a combined discussion which is developed in the context of existing research.

For ease of reference, the research questions addressed by this thesis are re-stated below:

1 (a): How do passengers use their travel-time during the bus journey?

1 (b): What influences the types of travel-time activity that are conducted on the bus?

2 (a): What influence does the use of travel-time have on passengers’ experiences and perceptions of bus travel?

2 (b): How important are mobile technologies and other carried objects in facilitating activity and creating different experiences of travel-time?

3: What explanations are there for diverse journey experiences amongst different passengers and/or groups of passengers?
5.1 Travel-time activity on the bus

This section presents the data related to research questions 1 (a) and 1 (b). Together, these questions address the ways in which travel-time is used, and also the aspects of the bus environment which can be seen to influence the opportunity for different types of travel-time activity.

5.1.1 Common travel-time activities

Qualitative data

The qualitative discourses generated in the online Bus Tales discussion and the focus groups demonstrate that there is a relatively wide range of travel-time activity occurring on the bus:

- Reading
- Listening to music/radio
- Relaxing/‘switching-off’/thinking
- Window-gazing/people-watching
- Chatting to friends/family
- Chatting to other passengers/acquaintances
- Phone-calls/texting
- Using the internet on a personal handheld device
- Work (for education – university, college, etc...)
- Organising social/work life
- Sleeping/snoozing
- Checking/sending emails
- ‘Sharing technology’ with friends (i.e. showing videos on an iPhone, ‘apps’, etc...)
- ‘Touring’ (using different routes to see more of the city)
Participants’ discourses show that engaging in travel-time activities is a normal part of the experience of bus travel. For several participants, certain activities were discussed as a routine element of the journey.

‘I usually read the Metro paper, if there are any left, or else I will get on with some Uni reading which uses the time more productively. I also often use the time to write lists of work and other bits and pieces I need to get done.’ (Female participant – Bus Tales)

‘I telephone people on the bus often – because a bus journey is ‘dead time’ it gives me an opportunity to make a phone call (difficult to find time during the day).’ (Male participant – Bus Tales)

‘I use my iPod because I find it really relaxing, I just want to relax. And I always take my phone just because I’ll need it! And I like to usually chat to someone. It depends on what mood I’m in.’ (Female participant – Bus user group)

‘I spend my time listening to music & playing on the internet on my phone.’ (Female participant – Bus Tales)

This thesis finds that out of all of the activities that participants reported, several were particularly popular. Listening to music, reading, window-gazing, sending text messages, making phone-calls, using the internet, people watching, and talking to other passengers all featured regularly in participants’ discourses, suggesting that these activities are particularly suited to travel-time on the bus. This finding is developed further in Section 5.1.2 (p. 158) in relation to the spatial, temporal, and social influences on activity that the bus environment engenders.

Several of the travel-time activities engaged in during a bus journey require the use of carried objects or mobile technologies. Throughout the discussions, participants listed a number of different items that commonly travelled with them and were put to use along the journey.
Chapter V – Results

- Books
- Newspapers
- Mobile phones
- Smartphones (iPhones, Blackberrys, etc...)
- Textbooks
- Personal music players (iPods, MP3 players, etc...)
- Laptop computers
- Food and drink

The items that passengers have to hand expand the possibilities for travel-time use, most often facilitating a wider range of activities than if they were to travel “empty handed”, as this participant illustrates.

‘It’s just having options you know, if you’ve got a book, and an MP3 player, and a Metro, and a phone then you can decide what you want to do: “Do I want to read my book?” “Do I want to listen to music?” “Do I want to try and do it all at the same time?”’ (Male participant – Bus user group)

Mobile phones, smartphones, personal music players, books, and newspapers were the items used most regularly, and were a common and recurrent feature of their discussions of the different activities participants engage in on-the-move. For some, different selections of these items formed a part of the “bus kit” that they routinely used during travel. In relation to this, whilst it was often not something that people carried with them, the provision of the free ‘Metro’ newspaper on many buses in Bristol was viewed particularly positively by a number of participants for providing them with something to do during the journey. The travel-time activities passengers engage in on the bus are closely interlinked with the objects and technologies that they have available, and this finding is developed further in Section 5.2 (p. 170).

This section has identified that there is a relatively broad range of travel-time activity occurring on the bus, and that a number of carried objects and mobile technologies are important in facilitating these. The qualitative discourses have been important in
establishing the range of common activities and carried objects, and also in providing explanations for their use. However, the small sample size of the qualitative phases limits what can be said about how common these activities are on the bus more widely. The lists of travel-time activities and carried objects generated from the qualitative data were therefore incorporated into the survey design and these findings were explored amongst a sample of 840 bus passengers in the Greater Bristol area. The following section presents the quantitative data on travel-time activity and carried objects, and compares these to the qualitative findings presented above.

Quantitative data

Table 3 below presents the proportions of participants (n = 840) that reported each activity included in Question 3 of the survey form (see: appendix 9.6, p. 355). It should be noted that several further potential travel-time activities and carried objects were incorporated into the lists generated from the qualitative data, and these were identified from the list used by Lyons et al. (2007) in the 2004 National Rail Passenger Survey. This was done to account for potential travel-time activities that were not reported in the qualitative data. In addition, the qualitative data has shown that the free Metro newspaper to be of particular importance to some passengers, and so has been included as a separate activity, distinct from other reading materials.

The highest proportions of respondents spent time window-gazing, people-watching, thinking, daydreaming, making personal phone calls, listening to music, reading the Metro, talking to others, and accessing the internet. The most popular activities reported in the survey are consistent with those that were discussed most frequently in the qualitative data.

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24 Those activities that have been added from this source are denoted by an *.
### Table 3 - Travel-time activities reported by survey participants

Table 4 below presents the proportions of participants (n = 840) that reported carrying and using each item included in Question 4 of the survey form (see: appendix 9.6, p. 355).

<table>
<thead>
<tr>
<th>Activity</th>
<th>Proportion that engaged (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window-gazing/people-watching</td>
<td>62.0</td>
</tr>
<tr>
<td>Thinking/contemplating</td>
<td>47.1</td>
</tr>
<tr>
<td>Daydreaming*</td>
<td>46.0</td>
</tr>
<tr>
<td>Phone-personal</td>
<td>42.0</td>
</tr>
<tr>
<td>Music/radio/(podcast*)</td>
<td>38.7</td>
</tr>
<tr>
<td>Reading the Metro</td>
<td>36.2</td>
</tr>
<tr>
<td>Talking to others</td>
<td>23.5</td>
</tr>
<tr>
<td>Accessing the internet</td>
<td>21.3</td>
</tr>
<tr>
<td>Accessing social network sites</td>
<td>16.4</td>
</tr>
<tr>
<td>Reading for leisure</td>
<td>12.7</td>
</tr>
<tr>
<td>Eating/drinking</td>
<td>11.3</td>
</tr>
<tr>
<td>Phone-work*</td>
<td>11.1</td>
</tr>
<tr>
<td>Checking email</td>
<td>9.8</td>
</tr>
<tr>
<td>Sleeping/snoozing</td>
<td>8.5</td>
</tr>
<tr>
<td>Working/studying</td>
<td>8.3</td>
</tr>
<tr>
<td>Planning onward trip*</td>
<td>7.4</td>
</tr>
<tr>
<td>Playing games*</td>
<td>7.0</td>
</tr>
<tr>
<td>Caring for dependent*</td>
<td>3.2</td>
</tr>
<tr>
<td>Watching film/video*</td>
<td>1.1</td>
</tr>
</tbody>
</table>

25 In responding to this question, participants were free to list as many activities as were required.
Bus Tales: Travel-time use, technologies, and journey experiences on the bus

<table>
<thead>
<tr>
<th>Item</th>
<th>Proportion that used (%)</th>
<th>Proportion that had to hand (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile phone</td>
<td>52.7</td>
<td>74.5</td>
</tr>
<tr>
<td>Metro newspaper</td>
<td>35.2</td>
<td>45.8</td>
</tr>
<tr>
<td>Personal music player/radio</td>
<td>33.3</td>
<td>42.5</td>
</tr>
<tr>
<td>Food/drink</td>
<td>9.9</td>
<td>20.7</td>
</tr>
<tr>
<td>Reading book</td>
<td>7.7</td>
<td>15.2</td>
</tr>
<tr>
<td>Paperwork</td>
<td>1.5</td>
<td>12.3</td>
</tr>
<tr>
<td>Textbook</td>
<td>3.7</td>
<td>12.1</td>
</tr>
<tr>
<td>Electronic game*</td>
<td>1.9</td>
<td>4.8</td>
</tr>
<tr>
<td>Other newspaper</td>
<td>1.8</td>
<td>4.4</td>
</tr>
<tr>
<td>Laptop</td>
<td>0.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Magazine</td>
<td>1.4</td>
<td>4.0</td>
</tr>
<tr>
<td>PDA&lt;sup&gt;26&lt;/sup&gt;</td>
<td>1.0</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Table 4 - Carried objects reported by survey participants

The survey finds that there are only a few carried objects that a high proportion of participants used during their journeys. Mobile phone use is particularly high, with more than one in every two passengers using a mobile phone at some point during their journey. The Metro newspaper and personal music players are also popular items, with approximately one third of passengers using these. Besides these, only food/drink and reading books were used by any large number of participants. Again, the quantitative data is consistent with the qualitative findings in relation to most of these items. However, where the quantitative results show that almost one in ten passengers had used food or drink on the bus, there was little discussion of this in the qualitative discourses, and where eating or drinking was referred to, it was more commonly described negatively or viewed as mildly antisocial. This disparity is

<sup>26</sup>Personal Digital Assistant – during data collection it was made clear on a number of occasions that this term was confusing to some participants, who asked for clarification on its meaning. At the time of designing the survey this was intended as a catch-all term for more advanced ICTs. On reflection it is perhaps an outdated term for devices which now are more commonly referred to as smartphones or palmtop/netbook PCs.
expanded upon in greater depth in later discussion, in relation to data that explores the social acceptability of different activities during travel-time (see: Section 5.1.2, p. 158).

This narrow range of carried objects is interesting when contrasted with the broader range of activities that high proportions of participants reported. This thesis finds that the activities in which passengers engage either do not require the use of carried objects (for example daydreaming, window-gazing, or chatting), or that the items passengers use are able to facilitate several different activities. This latter point is particularly relevant to the mobile technologies and ICTs that passengers carry — here the mobile phone. It is evident that mobile technologies are enabling passengers to engage in several different activities using only one device; for example, mobile phones — and in particular smartphones — allow people to engage in telephone calls, text messaging, internet surfing, emailing, music, watching videos, and more besides.

In developing these findings, there is an evident pattern — or common theme — in the types of activity and carried objects that are most frequently reported during travel-time on the bus. The most popular activities can all be related to particular experiences of travel-time: relaxation, socialising, the passing of time, and conducting personal business. The carried objects that are most commonly used all facilitate a number of these activities, and furthermore are hand-held, easily carried, and do not require a great deal of space for use. Thus, both the qualitative and the quantitative findings presented in this section demonstrate that there are a number of activities and objects that are particularly suited to travel-time on the bus. In support of this, Table 4 also shows that a proportion of passengers have a broader range of items to hand that they are not using during their journey. This suggests that there are certain carried objects and mobile technologies that participants either do not want to use on the bus, or that are not suited to use on the bus. The following section expands upon this insight to explore what influences the types of travel-time activity and carried objects that are the most frequently engaged in on the bus.
5.1.2 Activity potential

Qualitative data

The travel-time activities which are most commonly engaged in during the bus journey are predominantly of a certain type, and the carried objects and mobile technologies that people use during their journeys are all items that are readily to hand and require little space. In discussion with participants, it became clear that the bus environment itself has a strong influence on the types of travel-time activity that are engaged in during the journey, and in dictating what travel-time can (and cannot) be put to use for.

This thesis finds that the opportunity – or potential – for different types of travel-time activity on the bus is largely predicated upon five factors: (i) the physical environment and space of the bus; (ii) the length of the journey and frequency of stops; (iii) the sociality of the space, including the perceived acceptability of certain activities amongst different passengers; (iv) subjective preferences – including passengers’ propensity for different activities; and (v) particular issues of comfort, such as a susceptibility to travel sickness.

On the bus a passenger is likely to have less physical and personal space than they would on other modes, such as the car or the train. A consistent finding which emerged from the qualitative discourses was that the bus is perceived as an environment in which there is limited physical (and consequently also personal) space – and these opinions were contrasted against images of the more generous spaces of the car and the train. Participants on Bus Tales and in the bus user focus group described the physical space of the bus as “cramped”, “formal”, “over-crowded”, “crammed”, and lacking leg-room. There was some discussion of the fact that this was dependent upon how busy the bus was, and that at times when there were few passengers the bus could be transformed into a more “spacious” environment where there was a higher perceived degree of personal space. Also some participants noted that particular areas within the bus could provide greater space – such as seats by fire-
exits and near push-chair areas. However it is evident that the bus is an environment which is most often perceived by participants as restrictive.

‘I am tall and have long legs... I have no option - I have to sit in the seats either at the front of the bus (which are supposed to be for disabled passengers) or at the back of the bus. If the seats are full I have to sit in the middle of the bus in agony because my legs are in so much pain...’ (Female participant – Bus Tales)

‘Buses have cramped seats! I always leave buses with dead legs. Sometimes it’s quite embarrassing, especially as I walk onto the bus in good shape but barely walk off it – holding onto the rails supporting myself as I go.’ (Male participant – Bus Tales)

‘It can be very uncomfortable. The seats are too cramped; sometimes it feels like I have to sit in the aisle [laughter]!’ (Male participant – Bus user group)

‘I like to sit near the window but I hate it when I am next to the window and someone sits next to me as I feel a bit boxed in and I worry about getting off when I get to my stop.’ (Female participant – Bus Tales)

‘If I could change one thing about the bus it would be more leg room.’ (Female participant – Bus Tales)

These experiences were echoed in the perceptions of the bus discussed by the car user focus group participants. Moreover, amongst car users there was little recognition of the levels of patronage or different areas of the bus affecting the amount of space, demonstrating that the car drivers had a less detailed personal experience of the bus; their perceptions of space were articulated more as blanket descriptions of the bus environment in general.

These descriptions of the bus were contrasted against participants’ experiences of space during rail travel. Participants described the train as having “a lot more internal
space than the bus”, providing “more freedom than the bus”, being “more comfortable than a bus”, generally “spacious”, and there are several examples of participants describing tables, buffet cars, numerous carriages, and the ability to move about within the carriage as contributing to these feelings of greater space within the environment. Importantly, the amount of space available influences the types of activity that can be engaged in on-the-move.

‘The thing with having a table is that you’ve got that space (you never have that on the bus and tables can be quite useful), so of course obviously it opens up laptops and so forth, crosswords and things like that.’ (Male participant – Car user group)

The duration of a typical bus journey, the frequent stops, and the regular flow of people onto and off of the bus were also highlighted as an influencing factor in the types of activity that are possible during travel-time.

‘You can get your stuff out on a coach or a train because you can get a table or something, and you can be doing it for longer, they’re generally longer journeys, and when people are getting on and off it’s disruptive.’ (Male participant – Bus user group)

This helps to explain why activities such as window-gazing, thinking, reading, talking to others, and listening to music are the most frequently engaged in during travel-time on the bus, because they are the most suited to the spaces and temporalities of the bus journey. Furthermore, participants’ discourses highlight the growing relevance of technology in facilitating activities during bus travel. It was noted in the previous section that many participants are engaging in activities that require the use of mobile ICTs. In discussion with participants, it became clear that these technologies are broadening the activity potential of passengers on the bus. Emergent ICT technologies such as smartphones are offering increasing capabilities in the palms of passengers’ hands, requiring no additional space, and instant and easy virtual connectivity with the wider world. One participant described his morning activity routine on the bus, and it is evident how many different activities his smartphone provides the opportunity for:
This thesis holds that the use of mobile ICTs such as smartphones by passengers has strong relevance to the context of bus travel because of the restricted spatial nature of the environment. Smartphones perhaps have a greater value to bus passengers than train passengers because these are generally readily to hand. It is therefore a finding that the use of emergent ICT technologies of increasing capability and decreasing size is allowing some passengers on the bus to be increasingly “equipped” for travel-time activity without the necessity of the opportunity to unpack. For some passengers these devices are allowing them to conduct activities which before would have been problematic if not impossible; this refers in particular to surfing the internet, browsing social network sites, and checking emails – which the last section identified that 21.3%, 16.4%, and 9.8% of passengers respectively are now doing during their bus journeys.

The limited physical space often encountered during bus travel also indirectly influences the opportunity for travel-time activity through the intense experience of public or shared space that it engenders. The qualitative discourses demonstrate that the bus is often compared unfavourably to car travel in this respect, in terms of the feelings of personal space that the privacy of car travel can create. This is consistent with existing research which explores this aspect of car travel (for example see: Laurier et al., 2005; Guiver, 2007; Jain & Guiver, 2001; Urry, 1999). Participants in both focus groups discussed the “personalisation” of the space within the car – having adjustable...
seat positions, and control over the sensory environment through the temperature and the radio or CD player. An important factor in the creation of personal space within the car is also in the privacy of the interior and the control that the driver has over whom they choose to share their car journey with. Participants explained how the bus journey is most often experienced as intensely social, and spent in close proximity to others, removing this control of the sensory and social environment from the traveller, and also leading some participants to experience a lack of personal space.

‘The thing about the bus is the issue of limited control over your senses compared to other forms of transport. So take the car for instance, you can control the temperature of heating, you can control the sound with your radio on or off; on the train you can sit in a silent carriage if you don’t want to hear anything. But on the bus, you’ve just got to go with it... yeah you can control it by putting your iPod in but you can’t change temperature, you can’t change what’s happening around you, and so you don’t have much control basically.’ (Female participant – Bus user group)

‘Personal space can be about more than the physical space that you occupy – it’s like what you can hear, what you can see, everything. So in essence everything on a bus, as soon as you get on a bus everything is interfering with your personal space; if it’s busy you can hear people, you can, you know... I was going to say “see people” and that sounds really offensive [laughter]...’ (Male participant – Bus user group)

This was a consistent theme in the qualitative discourses, and in relation to the potential for travel-time use, the public nature of the bus and the lack of personal space that this engenders had the effect of making some participants feel uncomfortable engaging in certain activities.

‘I don’t like talking to people on the phone when I’m on the bus. I just get really self-conscious... A: I don’t want to annoy anyone; and B: it’s like a private conversation and I don’t really want people overhearing it... Not that I have dodgy conversations or anything [laughter]...’ (Male participant – Bus user group)

‘I WILL NEVER telephone anyone from my mobile whilst on a bus but I would
answer my ‘phone if someone rang me – I would speak very quietly and make the call as short as possible.’ (Female participant – Bus Tales)

‘I never talk on my mobile as I find other people who do annoying and rude! I don’t want to listen to their life story!’ (Female participant – Bus Tales)

‘I dislike it when I see people day to day but do not know them, it makes me feel a little uncomfortable. I do like a sense of community but in an enclosed area like a bus I would rather be anonymous. I like to go into my own space and relax on the bus rather than avoid eye contact!’ (Female participant – Bus Tales)

‘[I saw] an older woman shovelling food into her face like you wouldn’t believe. Urgh, eating should be banned in public...’ (Female participant – Bus Tales)

Therefore the propensity of some participants to engage in certain activities was influenced by how acceptable they perceived these to be in the public space of the bus, and this finding provides further evidence of the different ways in which the spaces of the bus shape and dictate the potential for different types of travel-time activity amongst different passengers. From the qualitative analysis it was evident that the most commonly contentious activities were the use of “intrusive” mobile technologies (mobile phones and music players), talking to (or being talked to by) strangers, and eating/drinking. Therefore the acceptability of these activities was explored further in the survey, and the quantitative findings related to this issue are presented in the following section. The findings explained in this section are central to later discussion in this chapter about the relationship between travel-time activity and passengers’ experiences and perceptions of bus travel, and this issue is developed further in relation to existing research in Chapter VI.

One further influence on the potential to engage in certain activities was identified from participants’ discourses. Travel-sickness creates a restriction on travel-time activity potential for a number of passengers. A proportion of participants explained that engaging in an activity which requires concentration or focus on an object inside
the bus – in particular reading in any form – generates feelings of nausea. This thesis does not go into depth on the physiological or psychological specifics of travel-sickness; however it is relevant to note its limiting effect in terms of travel-time activity.

‘I wish I could read on there but it makes me feel sick to look down. Sometimes I go to sleep.’ (Female participant – Bus Tales)

‘I try not to use my iPod and phone as it makes me feel sick so I just put my iPod on shuffle.’ (Female participant – Bus tales)

‘[Discussing travel-sickness] Yeah, I mean I get that sometimes. Like, I can only read one article in the Metro or something and then I’m sort of looking out the window or something to distract myself.’ (Female participant – Bus user group)

‘I wouldn’t read a book because I get car-sick.’ (Male participant – Car user group)

Moreover, on several occasions during data collection passengers refused to participate in the survey for this reason – although a few did (bravely) agree to complete it in spite of the negative experience they feared it would engender. There is little more that can be said about travel-sickness, beyond noting its restrictive effect on travel-time activity, and the way in which it narrows potential activity on the bus to quite passive time uses such as window-gazing, talking, and listening to music. Whilst there is perhaps little that can be done to overcome the issue, it is worth noting that it is a relatively common phenomenon.

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27 Putting a personal music player on “shuffle” makes it play a random selection of music, meaning that the user does not have to look at it further.
Quantitative data

Quantitative data is useful in demonstrating both the types of travel-time activity on the bus, and also the levels of activity. Thus, where the qualitative data have provided detailed explanations of the spatial and social influences of the bus environment upon activity, the quantitative data shows a different perspective – providing explanations through an aggregate analysis of the opportunity for activity interpreted from the level and range of different travel-time uses that are occurring. Earlier discussion has explained that there is a relatively broad range of travel-time activities occurring on the bus, and furthermore that there are several activities and carried objects which are particularly suited to bus travel. The quantitative data also shows how many different activities participants had conducted during their journey, and how many different carried items or mobile technologies they had used to facilitate these.

The finding is that the highest proportions of passengers are engaging in more than one activity, with several potentially being conducted on the same journey. Chart 7 below shows that >60% of individuals are engaging in between 2 and 5 activities on a single journey, and a further 23.7% of respondents are engaging in between 6 and 10. Proportionately few are engaging in only one activity or no activities at all (10.1%). The mean average number of activities conducted amongst all participants is 4.4, with the mode average finding that the highest numbers of individuals are engaging in 2 activities per-journey. Chart 8 presents the results for the number/range of items used per-journey by individual participants. The majority of passengers (64.4%) are using between 1 and 2 items per-journey, and a relatively high proportion (18.7%) are using no items at all during their journey. 11.8% of participants used three items per journey, and only 5.4% used more than 4 items on their journeys. The mean average number of items used per journey is 1.49, and the mode average is 1 item per journey. This supports the findings presented earlier that participants are using relatively few items on their journeys, particularly in relation to the number of activities that they are conducting.

It should be noted that there were sufficiently few incidences of passengers using >4 items per journey to necessitate a clustering of these responses to improve clarity.

28
Chart 7 - Number of activities survey participants reported on a single journey (n = 840)
In support of the findings in the previous section, the quantitative data show that proportions of passengers feel uncomfortable with themselves and others engaging in certain activities. Thirty-eight percent \((n = 760)\) of passengers were uncomfortable making phone-calls on the bus, and 32.9\% \((n = 774)\) unhappy with other passengers doing the same; 11.6\% \((n = 758)\) were uncomfortable listening to music, and 15.9\% \((n = 772)\) uncomfortable with others doing this; 39.3\% \((n = 763)\) of passengers felt uncomfortable talking to strangers, and 15.9\% \((n = 760)\) felt uncomfortable with other people doing the same; and finally, 34\% \((n = 751)\) felt uncomfortable eating on the bus, and 25.6\% \((n = 761)\) felt uncomfortable with others eating. This provides further evidence of the perceived social acceptability of certain activities which has an influence upon activity. It is important to note that the majority of passengers

**Chart 8 - Number of carried items survey respondents reported using on a single journey \((n = 840)\)**
nonetheless did not feel uncomfortable with these activities, and there is evidence that the perceived social acceptability of different activities is polarised by age. This issue is discussed in depth later in this chapter, and also in Chapter VI.

Whilst the spatial, temporal, and social qualities of the bus therefore influence the types of activity and carried objects that are common during travel-time, the levels of activity reported in the survey responses show that passengers are engaging in high proportions in the activities that the bus journey does provide the opportunity for, namely reading, listening to music, making phone-calls, browsing the internet, chatting to others, thinking, and window-gazing. There is consistency between the qualitative and quantitative findings, however in relation to the potential for activity, the two datasets show different perspectives on the issue, with the qualitative data explaining in greater depth how the bus influences the types of activity that are possible, and the quantitative data demonstrating how passengers are using this potential at the aggregate level.

This thesis finds that in terms of physical space and feelings of personal space that are resultant, the bus occupies the bottom rung of the bus-train-car hierarchy. Buses are perceived as cramped and close in relation to these other modes – with the ever-present risk of being trapped into an uncomfortable twin-seat by a stranger. Nonetheless, high proportions of participants are engaging in a range of different activities which are suited to the spaces of the bus. In the following sections, the findings presented above are developed in relation to data which explains how passengers experience their journeys. This creates an analysis of the relationship between travel-time activities, carried objects, and their influence on the ways in which passengers experience their time on the bus.
5.1.3 Key findings

Below, the key findings from this section are summarised:

- There is a relatively wide range of travel-time activity occurring on the bus. Listening to music, reading, making phone calls, texting, window-gazing, people-watching, chatting, and accessing the internet are the most frequently reported activities during travel-time.

- The most popular carried objects used during journeys are: mobile phones, personal music players, and Metro newspapers. Emergent ICT technologies – particularly smartphones – enable passengers to engage in several different activities using only one device.

- The types of activity that the bus journey provides the opportunity for are largely predicated upon five factors: (i) the physical environment and space of the bus; (ii) the length of the journey and frequency of stops; (iii) the sociality of the space, including the perceived acceptability of certain activities amongst different passengers; (iv) subjective preferences – including passengers’ propensity for different activities; and (v) particular issues of comfort, such as a susceptibility to travel sickness.

- Despite the physical, temporal, and social influences, travel-time activity is an integral aspect of the journey for many passengers, and the types of activities that are suited to the bus are engaged in by high proportions of participants. The fact that ICTs are able to facilitate a wider range of activities than would have been previously possible means that these are particularly relevant to travel-time on the bus.
5.2 Travel-time use, journey experience, and service perception

This section presents the data related to research questions 2 (a) and 2 (b). Together, these questions address the relationship between travel-time activity, carried objects, and passengers’ experiences and perceptions of the bus.

5.2.1 Qualitative data

Participants’ qualitative discourses explain in detail the different ways in which travel-time activities and carried objects influence the experience of bus travel. It is evident that there is a great deal of subjectivity in the different meanings that travel-time activity has to passengers, within which the individual context of different journeys taken at different times for different reasons adds a further layer of complexity. Through analysis of the discourses this thesis finds that the reasons that participants engaged in different activities could be grouped into three broad themes: for personal time, for controlling the experience of the journey, and for socialising. The discussion below moves through each of these.

Personal time

One of the dominant articulations of travel-time activity on the bus was as a piece of personal time. Several participants explained how the bus journey provides them with a slice of time during the day in which they were able to relax, “switch off”, adjust between different spheres of life such as work and home, or complete/organise personal tasks.

‘The bus journey is a time to reflect, to think and to enjoy the tranquility before or after work. For some reason I think about really random things in depth on the bus. I think this is because the bus journey is the only time I am completely alone with my thoughts in the day.’ (Female participant – Bus Tales)
‘The bus provides time to think about the day ahead, particularly what you are going to do at university that day. It is also much more relaxing than car travel, as you don’t necessarily have to pay attention!’ (Male participant – Bus Tales)

‘For me the time on the bus is a time of relaxation before starting my day at work. I am really using it reading the newspaper or listening to music.’ (Male participant – Bus Tales)

Where travel-time on the bus was perceived as personal time by participants, the experience of the journey was consistently articulated as positive and desirable. Referring to the findings in the previous section, several participants explained that they valued their travel-time specifically because of the restrictions that the bus journey engendered.

‘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 uni work or anything so I can relax without feeling guilty.’ (Female participant – Bus Tales)

The bus journey was seen to embody a form of escape, shielding some participants from the stresses and obligations of the daily routine. Other participants saw their time on the bus as an opportunity in which to be productive, organising schedules and completing personal tasks that they would otherwise have to find time for elsewhere.

‘I usually read the Metro paper, if there are any left, or else I will get on with some Uni reading which uses the time more productively. I also often use the time to write lists of work and other bits and pieces that I need to get done.’ (Female participant – Bus Tales)

‘My average bus journey is about 40mins, without this time I would be forced to spend extra time at my desk or on my laptop. So I get very productive use of time on
the bus. It enables me to make priorities, plan the rest of my day and feel confident about stuff.’ (Male participant – Bus Tales)

The carried objects and mobile technologies that passengers have with them help to facilitate positive experiences of personal time on the bus. Books, newspapers, and music players are used to relax and unwind, and formed a common part of participants’ discourses when explaining the value that they found in their bus journeys.

‘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 – Bus Tales)

‘[Discussing the Metro] It’s just quite nice like, I either get one in the morning just to relax before uni, or if I’ve got an exam I’ll pick it up for after, when I finish my exam and I don’t want to look at my notes.’ (Female participant – Bus Tales)

‘During exam times I just hope there’s a Metro so I don’t have to read. Because normally there’ll be a [text] book or something that I have to read at the time, so I tend to hope there’s a newspaper so I’ve got an excuse not to read.’ (Male participant – Bus user group)

‘I do enjoy just sitting quietly listening to my iPod and relaxing before I hit my destination.’ (Male participant – Bus Tales)

The importance of carried objects and mobile technologies to the experience of time on the bus was emphasised particularly strongly when participants discussed these becoming unavailable. This reinforces the earlier finding that for many individuals particular popular items such as mobile phones, personal music players, and newspapers are seen as an essential piece of “bus kit”. Several participants explained how they had come to rely upon the items they carried with them.
‘If my iPod runs out on the bus, it will lead to a bad journey, and I’ll just be annoyed that it’s run out.’ (Female participant – Bus user group)

‘If I didn’t have my phone or my iPod, and the journey was a bit crappy, and the weather was a bit miserable, then it’s just going to bring your whole kind of mood right down.’ (Male participant – Bus Tales)

Another participant explained how she had come to depend upon the Metro being available:

‘There should be more Metros as well, because in the morning everyone will grab a Metro on the first bus and there might be a few lying around but the majority of people either take them with them for later or they just disappear. So if you’re getting on the bus in the evening, if you’re relying on reading the Metro there might not be one.’ (Female participant – Bus user group)

A consistent theme running through participants’ articulations of personal time on the bus is of the experience being one of familiarity and routine. This is consistent with existing research by Jain (2009) and Noble (2008). For participants that were regular bus users, travel-time activity on the bus is most often part of “everyday” life, conducted using “everyday” carried objects, used in an “everyday” way. This everyday nature of travel-time use on the bus emerged through discussions in which individuals explained that few of the activities that they conduct on the bus are unique, and would be done at another point in the day if not on the bus. Furthermore, there is no evidence that people carry specific objects with them for use purely on the bus.

‘I’d say that although I do stuff on the bus I pretty much do it all at home, or whatever, or at uni, so it makes no odds really’ (Male participant – Bus user group).

Importantly, participants in the bus user focus group explained that this everyday nature of the time spent in the environment is something that actually contributes to a pleasant affect. The combination of the familiarity of this time with the unique affordance of this time that the bus engenders is part of the positive experience that can be created:
‘Because if it’s from a normal routine, then doing it on the bus as well makes you less stressed. Because if it’s what you do to relax anyway, then if you’re doing it on the bus it makes the journey better. It’s almost like I’m extending from being in my flat.’
(Female participant – Bus user group)

Here there is a link to existing research into the experience of car travel, in which people often conceptualise their cars as an extension of their home (see: Laurier et al., 2005; Laurier, 2004; Jain & Guiver, 2001; Urry, 1999). A similar theme emerged in the car user group, where many participants conceptualised the car as an extra room – or a piece of space that is distinctly theirs, which creates a strong feeling of affective comfort for some people engendered by its familiarity and safety. Where in the car this is embodied to a greater degree by the car itself, the customisation of the vehicle and its interior by the driver/owner, and all of the personal objects that a person has in their car; on the bus the opportunity for customisation or personalisation of the space is severely restricted by the bus environment, and so this familiarity is created by an alternate method – through activity. This creation of personal space is explored further in the following section.

There is evidence that this piece of everyday time on the bus is also a unique affordance because the bus provides dedicated time for certain activities. Whether it is purely the relaxation from switching off by reading, listening to music, or window-gazing, or the more active activities like socialising, on the bus these activities all provide a similar measure of comfort and tranquillity, making the bus – at these times – a very desirable place to be:

‘For me it’s time to relax especially after a busy day at work. Sometimes I feel like the journey could last a little longer – especially when I am at a good point in my book!’ (Female participant – Bus Tales)

‘I don’t mind if the bus takes a little bit longer [laughter]. Because I know that as soon as I get there I’m going to have to get my books out and start working.’ (Male participant – Bus user group)
Travel-time and activity on the bus creates a *particular positive experience* that some participants wished to have more of. Below, another participant explains how travel-time provides a unique opportunity for an experience of listening to music that he can’t get elsewhere, as described by Bull (2000):

‘It’s a good chance to just sit and really listen to what I want to listen to. If I’m at home and I’m listening to music I’m normally with someone or doing something else at the same time, so [on the bus] it’s a good chance to concentrate. Sounds a bit stupid but [laughs]…’ (Male participant – Bus user group)

This finding is significant because the everyday nature of travel-time experiences on the bus can be seen to both form a part of participants’ positive journey experiences, whilst at the same time it is suggested to be a reason that negative articulations of the bus journey are generally dominant over positive ones. In the online Bus Tales discussion, participants’ more *immediate* recollections of a memorable bus journey were commonly negative. And yet, where participants talked in greater depth about their positive experiences, their discourses had the suggestion that they weren’t as worthy of note. This is related to Guiver’s (2007) finding that the bus is often perceived relative to specific negative incidents which are generalised to perceptions of the service as-a-whole. Below, a participant suggests that even if he *has* had a positive journey experience, it is not something which he particularly recognises or takes mental note of:

‘You know, I don’t get off the bus and go “ah, that was a really good journey”.’ (Male participant – Bus user group)

Later in the discussion the same participant articulated several distinctly positive journey experiences related to switching off and the transitional qualities of the time he has spent on buses, but yet is suggesting in his initial statement above that he does not recognise these experiences – or perhaps does not pay them attention – when they occur day-to-day. It is only in a period of enforced reflection, such as that engendered by the focus groups, that these ideas come forth in a meaningful form. Therefore one of the central aspects of positive and negative experience on the bus
can be seen to be that people have little difficulty in recognising and relating negative tales of the bus, but that in terms of positive experiences people are less able to shape liminal, everyday, “standard” experiences – such as those of comfort and tranquillity – on the bus into meaningful narratives of a specific positive experience.

This finding raised an important point in relation to the relationship between the qualitative and quantitative datasets. The qualitative discourses were generated through an extended discussion in which participants had the opportunity to reflect upon, discuss, and conceptualise their experiences of travel-time. The quantitative survey collected data in-situ, as the journey experience was occurring; therefore there was little opportunity for participants to reflect upon their travel-time experiences in greater depth. The effects of this upon the findings from the two datasets are explored further over the course of this chapter, and the issue is developed in the discussion chapter in relation to the perceived difficulty in recognising and acknowledging positive experiences of travel-time.

Controlling journey experiences

The second common articulation of travel-time activity was of it being used to control or mediate the experience of the journey, and in particular as a tool for mitigating or attenuating negative experiences such as boredom, stress, or social discomfort.

Often the real duration of the bus journey can stretch out, and the experience of travel-time becomes boring and unpleasant. Boredom was discussed as a particularly prevalent malaise of the bus journey, and participants explained how they use travel-time activities to distract themselves and slow the onset of discomfort.

‘I don’t like to sit and do nothing on the bus, I find it makes the journey seem long and boring.’ (Female participant – Bus Tales)

There is a blurring of the boundary between different reasons for time use. There is significant complexity in drawing out the different relationships between activities and experiences on the bus. This has been repeatedly acknowledged in existing research
into travel-time use (see: Mokhtarian & Salomon, 2001; Lyons et al., 2007; Ettema et al., 2012). Where the findings in the previous section have explained the positive journey experiences that can be created by a specific sense of personal time, such experiences can sometimes also be explained simply as a “happy by-product” of attempts to pass the time and reduce the negative impacts of the journey.

‘When on the bus I often feel uncomfortable for different reasons and find myself reading just to keep my head down until I reach my stop. So, although activities such as reading are beneficial to me, they would be done anyway and are more a means of ignoring my surroundings.’ (Female participant – Bus Tales)

One participant explained how listening to his iPod helped him to overcome the stress of a bad bus journey:

‘Once I was in such a bad mood because the bus was late and it was raining and I had to catch another bus, that kind of thing, and I was just so pent up, and I switched on my iPod and I did feel much better after that, you know, I could just shut myself out, have a think to myself: “it’s not too bad”’. (Male participant – Bus user group)

Carried objects and mobile technologies perform a particularly important function in this respect. Having items to hand which facilitate activities is akin to passengers being provided with travel-time “tools” which they can use to shape their experiences, compress their subjective journey times, and shield them from the surrounding bus environment.

‘Having a book or music is really getting that personal space and that sense of... it’s like your little zone kind of thing. When I listen to my music I kind of zone everything else out and it’s kind of just me on the bus and on my journey. Rather than me on a bus with twenty other people, chatting about how drunk they were last night or whatever...’ (Male participant – Bus user group)

‘I’d definitely put on my iPod, I don’t want to listen to other people talking and
just try to shut out the noise really, and just kind of keep myself to myself really... Well, that sounds bad, but you know you’ve got some idiots talking behind you on the phone and you just want to kind of...’ (Male participant – Car user group)

‘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 – Bus user group)

‘I listen to music on my iPod on the bus. I also sometimes use my mobile to talk or text. I do these things to make the journey seem quicker.’ (Female participant – Bus Tales)

Thus, the speeding up of the subjective duration of the journey can create a more positive (or less negative) journey experience. Carried objects and mobile technologies are used often as tools for speeding up the duration of the journey or distracting participants from experiences of boredom. The most popular items that participants used to control their experiences of time on the bus were books, newspapers, and personal music players. One participant explained how sometimes she would create activities for herself to avoid having nothing to do.

‘I normally read on the bus, sometimes listening to music at the same time. Or I will just listen to music. If I have neither a book or my iPod I generally find someone to ring just to have something to do. I think doing things like this on the bus make the journey seem a lot quicker and more enjoyable.’ (Female participant – Bus Tales)

These same items have been discussed previously for their facilitation of positive experiences of time-out during the journey. Here, they are used for a different function in simply “killing time” and providing a distraction from negative aspects of the journey, demonstrating the subjectivity of travel-time activity and its relationship with journey experiences. The experiential function of travel-time activity on the bus is primarily dictated by the context in which the activity is conducted, and whom it is
conducted by. This key theme is developed in relation to the quantitative findings in the discussion chapter.

Participants explained that there are many aspects of the bus environment which they see as being potentially disruptive to their own sense of personal space – and these aspects relate largely to the actual physical layout of the bus and the other passengers with whom they share this space. Participants in the car user group similarly perceived that the bus environment would be one which was un-tranquil.

‘I don’t like interacting with the social environment, it’s forced. Also the amount of people that you don’t want to sit next to and talk to. But you don’t have a choice in that situation...’ (Male participant – Car user group)

[In response to above]: ‘So it takes away control over that situation?’ (Interviewer)

[In response to above]: ‘Yeah, control and freedom and having personal space.’ (Male participant)

[In response to above]: ‘I think it can be really intimidating as well, especially if you’re getting back with the school run and you’ve got ten or twenty sixteen-year-olds that are all at the back of the bus throwing bits of paper and stuff it can be really intimidating if you’re there on your own.’ (Female participant)

These car drivers imagine a public space that is full of perceived intrusions into personal space, which would shatter the feelings of tranquillity and comfort which passengers desired. Bus users’ experiences mirror these perceptions. Participants in the bus user focus group explained the intensity of stepping into the bus environment, and all of the disruptions that can be seen to be immediately encroaching on personal space. The public space of the bus often creates a sense of being “on show”, and participants routinely expected to have to share a seat with a stranger which would restrict their personal space.
The aspects of the bus environment which are inherently disruptive to personal space conflict with some of the characteristics of a tranquil experience (see: Stradling et al., 2007) and a pleasantly deactivated journey, which can be easily shattered by ‘unwished interactions’ – where the environment of the bus is interfering with an individual’s personal space in ways that they do not want (Stradling et al., 2007; Russell, 2003). Reflecting on this, this thesis finds that some participants prepare for this inevitability of social contact, and have methods for minimising the potential for a negative encounter.

Several of the participants on Bus Tales listed specific methods for minimising the potential for such unwished interactions as part of their “criteria” when choosing a seat on the bus, mirroring the findings of Nash (1975) who has discussed the routines that passengers have for negotiating space within the bus, as discussed in the literature review. This thesis finds that people focus largely on unwished interactions with other passengers, almost unanimously listing that one of their first stipulations for seat choice when travelling alone is that it must be an empty two-seat, preferably distanced from any other passengers. Beyond the initial selection of a seat, participants often use carried items to mitigate some of the negative experiences of social discomfort. Some of the mobile technologies and carried objects that participants use on the bus have the important experiential function of “shutting them off” – or disconnecting them – from the surrounding bus environment, creating a fragile piece of personal space within an intensely public environment:

‘I like to listen to my iPod so I don’t have to talk to any of the weirdoes on the bus’ (Female participant – Bus Tales).

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

‘This thing about the bus, the issue of limited control over your senses compared to other modes of transport, you can control it by putting your iPod in.’ (Female participant – Bus user group)
Participants discuss the creation of personal space through the use of a personal music players and books, which can provide a measure of control over the environment which is perceived to be potentially disruptive.

Reflecting on an earlier finding, if the carried items and technologies that participants had come to rely upon to create personal space were not available, this in itself could create a negative experience. Without these items, people that are used to using them in the bus might find it impossible to attain a sense of personal space, and have a heightened potential to experience the negative effects of social discomfort.

Whilst travel-time activities and carried objects are used by some individuals to mitigate or improve negative experiences, in some cases, the use of certain mobile technologies can have a negative impact on other passengers’ tranquil and comfortable experiences of a journey. For example, participants that used music players on the bus report that they sometimes find it annoying when other people use theirs, normally with the caveat that the offending person is using it in an unsociable or “unfair” manner, rather than taking issue with use itself.

‘I don’t mind other people on the same bus journey using their mobile ‘phone or iPod as long as it is in a quiet manner. I think that speaking to someone on your mobile for the entire bus journey is unsociable and I am not happy about this. You should not inflict your phone conversation on the rest of the passengers! They are entitled to a quiet bus ride. I don’t mind other people listening to music as long as the volume is at a reasonable level – some people have their music so loud the whole bus can hear it. Again it’s not fair on the other passengers.’ (Female participant – Bus Tales)

Many participants echoed this view, and there was the suggestion that there is a tacit social code in the bus environment whereby some individuals take umbrage at an
intrusion into their personal space by the actions of others – particularly where they view their own actions as being mindful of other people’s experiences.

In exploring this finding further, this theme was included in the survey design for Phase 3, and further discussion on different passengers’ ideas of what is socially acceptable activity during a bus journey is developed in the following chapters in relation to the quantitative findings. The small interferences of other passengers’ travel-time use upon the individual sometimes disrupt the maintenance of a positive journey experience, and create a negative experience.

Thus, the qualitative data finds that travel-time activities on the bus can be used to mitigate negative experiences. In such cases, where travel-time activities can be said to have a positive benefit to the traveller, they will not necessarily create a distinctly positive experience of the journey; rather they will simply make the experience less unpleasant, as one participant explained:

‘I get two trains and a bus to work just outside Bath which adds three hours travel time to my day (door to door). I always make sure I’ve got a book to read or look at Facebook on my phone. I love reading so enjoy this but I don’t really enjoy the general experience of the journey!’ (Female participant – Bus Tales)

It is evident that the relationship between the positive benefits of travel-time activity per se and its subsequent role in the wider formation of a distinctly positive journey experience is complex, and is developed in relation to existing research in the discussion chapter.

Socialising

Where for some the social nature of the bus is an unwanted intrusion into personal space, for others, the bus offers a quite distinct opportunity to socialise. The space is intensely public and populated to varying degrees by friends, strangers, families, work colleagues, and bus acquaintances. It is evident that when socialising is desired, it can contribute to a more positive experience of the bus journey.
‘I just chat to people. I feel more relaxed if I’m talking to someone, even if it’s just at the bus stop. Even if you just compliment someone on the bus then they feel so much better about the journey anyway.’ (Female participant – Bus user group)

‘Ideally I like to socialise. Often (more so with the U-Link buses and long distance journeys) I speak to the person sitting next to me. It provides a fantastic opportunity to meet new people.’ (Male participant – Bus Tales)

‘I’d rather talk to someone than just sit there and listen to my iPod.’ (Female participant – Bus user group)

There is a tension between those who enjoy the experience of chatting to strangers, and those who feel uncomfortable and would rather have their own personal space. Therefore on the bus the particular sociality that is created is borne from a mix of competing desires from passengers for their own tranquil and comfortable experience. For some, this can come from chatting to strangers on the bus; for others, the very act of being spoken to by a stranger can cause their fragile construction of personal space to shatter. On the bus the sociality might be seen to be characterised by this tension between competing – and sometimes incommensurable – attempts at crafting affective comfort through particular activities or ways of using travel-time.

Although this chatters/chatted to distinction can cause social tension when it is enacted by strangers, participants enjoyed talking to friends and acquaintances on the bus. This is a particular aspect of the everyday nature of the bus experience, and participants enjoy the time that the bus offers to engage in social exchange with people that they know. Socialising with people that participants know is was discussed as uniformly positive.

‘If I’ve got a friend as well, then I’ve got a comfort zone really, because I know that person and I can talk to them.’ (Female participant – Bus user group)
Furthermore, when travelling with people that they knew, participants explained that socialising would most often take precedence over other travel-time activities that they might have conducted if travelling alone.

‘If I’m travelling with a friend then I wouldn’t use any of that stuff [carried objects], you know, I’d just have conversation between me and whoever I’m travelling with.’ (Female participant – Car user group)

With reference to earlier discussion on the ways in which mobile technologies and emergent ICTs are expanding the range of activities available to the traveller, there is evidence that virtual communication with people not on the bus is re-shaping the social experience of bus travel for some passengers. Participants discussed sending texts and making phone-calls during their journey; in doing so they remove themselves from the immediate social environment with the bus and re-engage with their wider social networks through virtual communication. Virtual co-presence with others outside of the bus was discussed by participants on Bus Tales as being of generally positive benefit. Predominantly as a means of killing time or for making social contact that they might not otherwise have time for.

‘If I am bored I will phone a friend for a chat for something to do which I may not have a chance to do if I did not have that spare time which I have on the bus. I think a lot of the time if you are busy you only call people if you have a specific thing to discuss, spare time is needed to make a call just for general chit chat which is what the bus journey provides.’ (Female participant – Bus Tales)

‘Most of the texts I send are texts that would be sent anyway or need to be sent, but I do also send some as a way of passing time which helps me to keep in touch with people who I might not text so often otherwise.’ (Female participant – Bus Tales)

‘I telephone people on the bus often - because a bus journey is 'dead time' it gives me an opportunity to make a phone call (difficult to find time during the day) and to remain occupied and pass the time.’ (Male participant – Bus Tales)
Chapter V – Results

‘I like to listen to my iPod, empty the rubbish texts off my phone and send texts to people I forgot to reply to.’ (Female participant – Bus Tales)

This finding is developed further in Chapter VI in relation to existing research which considers the ways in which ICTs and virtual communication are changing the ways in which people create a sense of engagement or disengagement with and within different social groups.

There is evidence that talking to others on the bus (either within the bus or virtually) allows negative experiences of the bus to be shared around with others, thus lessening the impact of the negative experiences that might normally be encountered in isolation. This is consistent with discussion by Conrad (1997). Sharing negative experiences of the bus helps to attenuate and make light of stressful experiences which might be more greatly amplified in other solitary contexts.

‘You can bitch about the situation to your mates.’ (Male participant – Bus user group)

‘[Interviewer – in response to above] OK, what so you can share that around?’

‘Yeah, just kind of vent that frustration onto somebody else – “bloody bus!”’ (Male participant)

It is evident from the data that a distinction can be drawn between different experiences of the social space created at different times and on different services. Participants discussed how on the university’s U-Link service, they were more willing to engage in social exchange with a wider range of people because of the perceived similarity that these people have to themselves – in going to university. In several cases almost everyone on the bus was considered as an “acquaintance”.

‘Like everyone on the bus will talk to each other, saying “oh, what time’s your exam?” Even if you don’t really know them, but you just recognise them from your building they’ll talk to you.’ (Female participant – Bus user group)
‘I guess if you’re getting the uni bus then you’re all students and you’ve all got something in common. It’s like someone said earlier about exam period when everyone chats to each other. Everyone’s got something in common with someone else on the bus.’ (Male participant – Bus user group)

When discussing non-university buses however, the definition of “acquaintance” appears to narrow sharply, and buses are conceived as being populated by undesirable strangers:

[In response to above]: ‘Whereas getting a First bus you get some proper weirdoes and you actually don’t want them to sit down next to you!’ (Male participant – Bus user group)

This is relevant to the issue identified in policy documents with regards to making the bus more attractive (see: DfT, 2011a, DfT 1998). The sense of engagement that passengers feel with the social space of the bus and how they view other passengers is important in creating perceptions of the mode, and this issue is expanded upon with reference to existing research in Chapter VI.

The experiential effect of socialising on the bus extends beyond the positive or negative experience that can be created from personal interaction, and the enactment of social exchange between other passengers can be seen to influence the subjective experience of the journey for individuals that witness such exchanges:

‘Sometimes people-watching on the bus is hilarious and upsetting in equal measure [laughter]. I’ve seen some of probably the worst parenting that I’ve seen getting that bus to town.’ (Male participant – Bus user group)

‘I quite like the voyeurism of seeing what different characters get on the bus. You get to see a lot of different people on the bus that you otherwise wouldn’t normally come into contact with, and I have to admit that I quite like people watching.’ (Male participant – Bus Tales)

‘I spend my time looking out of the window at what’s going on around the city,
Participants enjoy watching social exchange on the bus, providing them with interesting distraction during the journey. One described the bus scene as like watching a soap opera, and there is a link here to the perceived intensity of the bus environment and all of the competing affective and social realms that coalesce in this place – sometimes providing the thrill of watching “voyeuristically” as interesting events and situations unfold.

The findings presented in this section demonstrate the different meanings that travel-time activity can give to passengers’ journey experiences. The qualitative discourses go into depth in explaining the complex contextuality inherent in the relationship between activity and experience, and furthermore provide insight into the different ways in which positive and negative narratives of the journey are formulated and articulated. In exploring these findings further, the survey collected data on passengers’ current (i.e. the journey they were surveyed on) and usual experience of the journey, and also their general perceptions of the bus, through a series of experiential questions constructed using the themes and findings discussed above. In doing so, these could be analysed in relation to the travel-time activities and carried objects that passengers had reported, and the relationship between activity, carried objects, journey experience, and service perception explored more widely amongst 840 participants. The quantitative findings are presented in the following section alongside a discussion of the relationship between the two forms of data and the findings they have generated.
5.2.2 Quantitative data

An ordinal regression analysis was employed to explain the influence of independent variables upon passengers’ perceptions and experiences of the bus. Five separate models were constructed. The dependent variables for these models are: Question 1 – passenger’s general perception of the bus; Question 5 – Enjoyable/Boring; Question 5 – Relaxing/Stressful; Question 5 – Comfortable/Uncomfortable; and Question 5 – Useful/Wasted (see: appendix 9.6, p. 355). The intent of these analyses was to ascertain the significance of the association of different independent variables to passengers’ perceptions and journey experiences, and the independent variables identified as significant (p < 0.05\(^{29}\)) in each case are presented below, alongside a consideration of variables which are notable for their insignificance.

\(^{29}\)In two instances independent variables with associations significant to p < 0.1 have been included in the model because they improve the overall fit of the model. These instances have been highlighted and discussed.
Travel-time activity and service perceptions

<table>
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<tr>
<th>Parameter Estimates</th>
<th>Estimate</th>
<th>Std. Error</th>
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<th>Sig.</th>
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<td>0</td>
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<td>0</td>
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<td>.</td>
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</table>

Link function: Logit.

a. This parameter is set to zero because it is redundant.

b. Significance level denoted by: [*** p < 0.01] [** p < 0.05] [* p < 0.1]

Note: The reference category for the dependent variable in this analysis is “Perception 3 (neutral / +ve)”.

Table 5 - Regression model output: Passenger perception

There are 7 variables which have a significant effect upon passengers’ perceptions of the bus\textsuperscript{30}. The complete model above is statistically significant ($\chi^2$ (10df) = 78.116, p =

\textsuperscript{30} It should be noted that the dependent variable in this model is a clustered variable created from the original Question 1 “RideGen” variable. The model showed that there was only a significant association with perception at the negative end of the Likert scale where participants reported disliking the bus, and that those participants’ responses at the middle and positive end of the scale were not statistically distinguishable from the reference category. Therefore this variable was clustered into three categories: “I really don’t like it” (Perception 1 (−ve)); “I don’t like it” (Perception 2 (−ve)); and “I don’t dislike it” (reference). Similarly, the age range 55-64 was statistically indistinguishable from the reference category (65+) and so the age ranges 55-64 and 65+ were clustered into the new “Age: 55+” variable to attend to this. This suggests that there is a stronger distinction in perception between the oldest participants and those in the younger categories.
In all of the ordinal regression analyses reported in this thesis, the variable “Social comfort” is included in the model as a covariate, and is found to be a consistently significant variable across all of these.

To begin with this, the “Social comfort” variable represents data collected in Question 8 of the questionnaire (see: appendix 9.6, p. 355). The variable represents the data from participants’ responses to how happy/comfortable they were talking to strangers on the bus. Passengers that are more comfortable talking to strangers on the bus have a higher general perception of the bus (p < 0.05). The consistency of this variable across all of the regression analyses indicates that a person’s willingness to engage with the social aspects of the bus (or at least a person feeling comfortable within the social environment of the bus) is a very important factor in influencing perceptions and journey experiences. This finding is discussed in greater depth in Section 5.3.2 (p. 206).

The punctuality variable (“Punctual?”) indicates whether the bus was on time or not at the point of departure. Bus journeys that were punctual were coded as 1 (Y) and those that were late coded as 0 (N). Punctuality has a significant negative association (p < 0.01) with passenger perceptions of the bus more generally. Passengers on buses that were late on the day on which they were surveyed had a worse perception of buses in general. The punctuality variable is also consistent across all of the regression analyses, and therefore can be seen as a critical factor in the creation of both positive perceptions and journey experiences. This highlights the importance of service aspects to passengers, and the consistent significance of this variable in comparison to variables related to travel-time activity and carried objects indicates that these factors are only of importance in the perceptions and journey experiences of passengers once the basic aspects of service provision are consistently met. This finding is developed further in Chapter VI as a part of a discussion of the importance of travel-time activity in influencing journey experience, relative to other aspects of bus travel.

The age variable (“Age”) has a significant positive association (p < 0.05) with participants’ perception of the bus. As age increases, it becomes increasingly likely that a participant will report a more positive perception. Due to the consistent significance

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31To within a tolerance of 5 minutes from the scheduled departure time.
of the age variable, the final section of this chapter (see: Section 5.3.2, p. 206) is devoted to drawing together the findings that indicate strong generational/cohort influences upon many aspects of the bus – perception, activity, and journey experience. Moreover, these findings are developed in relation to the qualitative data and existing research in the discussion chapter.

The final four variables in the model are related to travel-time activity, and demonstrate that some travel-time activities have a significant association with passengers’ perceptions of the bus. The four activities that have a significant association with general perceptions are: window-gazing, listening to music, being bored, and planning an onward journey.

Passengers that reported window-gazing (“Window-gazed?”) as an activity were more likely to have a better perception of buses (p < 0.01). It is suggested that window-gazing is a somewhat relaxing and switched-off ‘anti-activity’ which previous discussion in the literature review (see: Lyons et al., 2007; Holley et al., 2008) has highlighted is a desirable journey experience, and therefore can be reasonably argued as positively associated with perceptions of the bus.

Listening to music (“Had music?”) has a significant positive association with perceptions. It should be noted here however that this relationship is significant to p = 0.089. This variable has been left in the analysis however for its positive contribution to the overall fit of the model. The finding is that passengers who were listening to music were slightly more likely to have a positive perception of the bus, and this is suggested as being for similar reasons to those discussed for window-gazing above. Reflecting on the positive influence of listening to music demonstrated by the qualitative discourses, the association of listening to music with positive perceptions of the bus is understandable. It is emphasised that this association is weak relative to the associations of the punctuality, social comfort, and age variables discussed above.

Boredom – or the activity of “being bored” (“Was bored?”) – has a strong significant negative association with perception (p < 0.01). Those passengers that are bored on the bus have a more negative perception of buses more generally. This result might be
seen as expected. This finding demonstrates that boredom is an aspect of the bus experience which is able to negatively affect people’s perceptions of the mode. There is also suggestion of some multicollinearity here, and later discussion highlights that the youngest passengers are significantly more bored than their older counterparts. The age related findings surrounding boredom are developed further in the discussion chapter in Section 6.3.2 (p. 264).

Planning an onward journey (“Planned?”) was the final variable to have a significant positive association with perception. Again, this variable was only significant at $p = 0.086$, however it improves the fit of the model overall and so the significance level of $p < 0.1$ has been accepted in this case. The finding is that people who spent time planning an onward journey have a slightly more positive perception of buses more generally. This is suggested to be because planning a journey suggests a higher level of engagement and control over the experience, and therefore might be seen to positively influence perceptions. It should also be noted however that at the aggregate level, planning an onward journey was an activity reported by proportionately few individuals ($n = 62, 7.4\%$ of total).

Whilst no other variables have a significant association with perception, it is worth discussing those variables that are notable in this analysis by their insignificance. Car availability (choice), all carried objects, journey purpose, gender, time of day, and all other travel-time activities were originally included in the model and found not be significant. It is an important finding that travel-time activities have such a weak association with perceptions, and even those that do display a significant association are most easily related to experiential factors – particularly boredom. The number of items that people had used had no significant association with perception. Gender has no significant association. The variables which have the strongest associations are those related to service aspects (punctuality), age, and a person’s subjective feelings towards the social environment of the bus. These findings are expanded upon in the discussion chapter.
Chapter V – Results

Travel-time activity and journey experiences

This section presents the results of the ordinal regression analyses for the four journey experience variables: Question 5 – Enjoyable/Boring (or Fun/Dull); Question 5 – Relaxing/Stressful; Question 5 – Comfortable/Uncomfortable; and Question 5 – Useful/Wasted. Due to the similarities between the findings for these individual variables, Table 6 – Table 9 below are presented together at the start of the section. Following this, the experiential findings are reported together.

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Link function: Logit.

a. This parameter is set to zero because it is redundant.
b. Significance level denoted by: [ *** p < 0.01 ] [ ** p < 0.05 ] [ * p < 0.1 ]

Note: The reference category for the dependent variable in this analysis is “Exp: Enjoyable (+++ve)”.

Table 6 - Regression model output: Journey experience (enjoyable/boring)

Table 6 shows that 4 variables have a significant association with passengers’ journey experiences of the bus in relation to the Enjoyable/Boring variable. It should be noted that in several cases the age ranges comprising 35-64 were statistically indistinguishable from the reference category (65+) and so the age ranges 35-44, 45-54, 55-64, and 65+ were clustered into the new “Age: 35+” category. The same is true for the analysis on the following page.
model above is statistically significant ($\chi^2 (5\text{df}) = 67.274, p = 0.00$).

<table>
<thead>
<tr>
<th>Parameter Estimates</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
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Link function: Logit.

a. This parameter is set to zero because it is redundant.
b. Significance level denoted by: [ *** p < 0.01 ] [ ** p < 0.05 ] [ * p < 0.1 ]

Note: The reference category for the dependent variable in this analysis is “Exp: Relax (+++ve)”.

**Table 7 - Regression model output: Journey experience (relaxing/stressful)**

Table 7 above shows that there are 4 variables which have a significant association with passengers’ journey experiences of the bus in relation to the Relaxing/Stressful variable. The complete model above is statistically significant ($\chi^2 (5\text{df}) = 66.773, p = 0.00$).
Table 8 - Regression model output: Journey experience (comfortable/uncomfortable)

Table 8 above shows that there are 5 variables which have a significant association with passengers’ journey experiences of the bus in relation to the Comfortable/Uncomfortable variable. The complete model above is statistically significant ($\chi^2$ (5df) = 53.070, $p = 0.00$).
### Parameter Estimates

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<tr>
<th></th>
<th>Estimate</th>
<th>Std. Error</th>
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<th>df</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
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**Link function: Logit.**

*This parameter is set to zero because it is redundant.*

b. Significance level denoted by: [ *** p < 0.01 ] [ ** p < 0.05 ] [ * p < 0.1 ]

Note: The reference category for the dependent variable in this analysis is "Exp: Useful (+++ve)".

**Table 9 - Regression model output: Journey experience (useful/wasted)**

Table 9 above shows that there are 7 variables which have a significant association with passengers’ journey experiences of the bus in relation to the Useful/Wasted variable. The complete model above is statistically significant ($\chi^2$ (9df) = 54.766, $p = 0.00$).

---

[33] It should be noted that in this model the age range comprising 45-64 was statistically indistinguishable from the reference category (65+) and so the age ranges 45-54, 55-64, and 65+ were clustered into the new “Age: 45+” category. The same is true for the analysis on the following page.
Again, the finding is that the social comfort ("Social comfort") covariate has a significant positive association (p < 0.05) with the journey experience. All of the models demonstrate that those passengers that are more comfortable talking to strangers on the bus were more likely to have had a more positive experience of their journey in relation to those who are less comfortable. This finding is consistent across all experiential variables, and this result links to the finding above that a willingness to engage in the bus environment and feelings of comfort in the social environment of the bus are integral to creating positive journey experiences and perceptions of the bus.

The punctuality variable ("Punctual?") is present again in all of the models, and shows a significant positive association with journey experience (p < 0.05). Passengers on buses that were punctual were more likely to have a more positive bus journey experience than those that were on buses that were late, irrespective of the travel-time activities in which they engaged. Passengers travelling on buses that were late were more likely to experience less enjoyment, less relaxation, less comfort, and to feel their time was more wasted. It has already been suggested that the basic service aspects of the bus are an overarching factor in the creation and maintenance of positive journey experiences and perceptions, and this finding adds additional support to this claim. It is important to emphasise the finding that the negative experience of lateness subsequently leaches into other aspects of the journey experience which might – at first glance – appear unrelated, for example comfort. This issue is discussed in greater detail in the discussion chapter.

There is a significant association between age and a positive journey experience on the bus. The suggestion from this variable in each is that the very youngest age group (16 – 24) are significantly more likely to report a more negative experience of the journey than the older age categories (p < 0.05), although the 25 – 34 age range is also distinguishable in this respect, and are found to also be having a more negative experience than their older counterparts. The exception to this trend is in experiences of comfort/discomfort on the bus, in which age is found not to display a significant association. All of these age-related findings are developed further in Section 6.3.2 (p. 264).
There are a number of travel-time activities and carried objects which have significant associations with the different experiential variables. Those variables which are significant in two or more models are presented first, followed by those which have significant associations in individual models.

The activity of being bored (“Was bored?”) is found to have a significant negative association with journey experience ($p = 0.00$) in two of the four models (Table 8 and Table 9). Those passengers that report being bored were more likely to have had a less comfortable experience ($p = 0.001$), and perceived their travel-time as more wasted ($p < 0.01$). Boredom however has no significant association with experiences of relaxation/stress. This suggests that there is a blurring of the boundary between experiences of boredom and experiences of relaxation. The effects of boredom are discussed together and expanded upon in relation to existing research in Chapter VI.

Listening to music/the use of a personal music player had a significant positive association with experiences of relaxation ($p < 0.05$) and “usefulness” of travel-time ($p < 0.05$). The finding is that those participants that used a portable music player had a more relaxing experience of their journey, and that those passengers that had engaged in the activity of listening to music experienced their travel-time as less wasted. These results are consistent with the findings from the qualitative data that certain activities can improve the experience of travel-time on the bus, and align closely with discussion about the ways in which listening to a personal music player enables some people to switch-off or to disengage from the social environment and outside intrusions of the bus. These findings are expanded upon in conjunction with the qualitative data and the existing research in the discussion chapter.

Table 6 shows that caring for another person on the bus (“Had dependent?”) has a significant positive association with journey experience ($p < 0.05$). This finding indicates that caring for other passengers on the bus (predominantly children) creates a more enjoyable/fun journey experience. This finding is interesting as the proportion of participants that had engaged in this activity was very low ($n = 27, 3.2\%$ total), and

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34 It should be noted here that whilst the variable “Q3Bored” was originally included in the model for Fun/Dull, and was found to have a strong significant association with the experience. However, the multicollinearity of this variable in relation to the dependent lead to its exclusion.
yet this variable has a strongly significant association. This variable is not significant in any other analysis however, and therefore it is problematic to explore this aspect in greater detail. However it is suggested that this finding could be the result of the responsibility of caring for another passenger involving duties which mean that passengers were less likely to rate the experience as dull/boring, as opposed to specifically rating it as more enjoyable/fun.

There is a significant association between those passengers that reported using an electronic game or a PDA and their experience of comfort on the bus (p < 0.05) (Table 8). Participants that had used a PDA were more likely to report a more comfortable experience; whereas passengers that had used an electronic game were more likely to report an uncomfortable experience. It is interesting however that the use of these items is found only to have a significant association with this variable, and has no association with enjoyment or relaxation. Proportionately very few participants used either of these items during their journey however (<2%), and thus the fact these retain a significant association demonstrates that these items have a strong association with experiences of comfort.

Finally, the data in Table 9 demonstrates that window-gazing and checking emails have significant positive associations with how useful participants found their travel-time. Participants that were window gazing and participants that were checking their emails were more likely to find their travel-time useful (p < 0.05). When considered alongside listening to music, which was also found to have a positive association with the usefulness of travel-time, it is apparent that there is some subjective value in these activities for passengers. It is important to note that these activities – and in particular window-gazing – are ones which might be considered as not particularly valuable from an economic viewpoint, and yet nonetheless they have significant associations at the subjective level with people experiencing their travel-time as useful.

Again, most travel-time activities are notable by their insignificance in this model. The finding here is that most travel-time activities and the use of carried objects do not have a significant association with journey experience. Whilst the results find that there are some specific activities and carried objects which have an influence upon the
experience of the journey, the most consistent significant associations in this context are again with service aspects (punctuality), age, and an individual’s comfort and engagement with the social environment of the bus. The key message from these findings is that travel-time use and activity can have a positive effect in the creation of journey experiences, however the importance of this influence is predicated on key aspects of service delivery being met, and also relatively subsumed by other subjective factors such as age and a person’s social disposition on the bus.

The findings presented above are not strongly consistent with the qualitative findings discussed in the previous section. The qualitative findings explain in depth the influence of travel-time activity and mobile technologies on passengers’ journey experiences, and demonstrate that travel-time activities such as reading, listening to music, making phone-calls, chatting to others, and window-gazing are all a part of the experience of bus travel – facilitating experiences of personal time and helping passengers to control their experiences of the journey. However, the quantitative data finds that only a small few activities and carried objects have – at best – an inconsistent statistical association with different aspects of passengers’ journey experiences and wider service perceptions. The quantitative data instead finds the most significant factors to be punctuality of the service, a person’s age, and individuals’ subjective feelings of social comfort in the public spaces of the bus.

This demonstrates the importance of the relationship between the two different forms of data used in this thesis. The outcome of each dataset reflects the methodology. Earlier discussion has explained how participants’ qualitative discourses suggest there is a difficulty in formulating and articulating experiences of travel-time – particularly in relation to positive experiences. Participants required time to formulate meaningful discourses of their travel-time activities in relation to their journey experiences. The differences between the qualitative findings and the quantitative findings suggest that the more immediate responses necessitated by the survey meant that other factors were of more primary influence than travel-time activity to journey experiences and service perceptions. This issue is developed further in discussion in Chapter VI.
5.2.3 Key findings

Below, the key findings from this section are summarised:

- The qualitative and quantitative datasets generate findings which show two different perspectives on the relationship between travel-time activity and journey experiences.

- The qualitative data provides evidence that there are three principal reasons for travel-time activity on the bus: for personal time; for controlling journey experiences; and for socialising:
  - Personal time: The journey is valued as a chance to relax, “switch-off”, or complete personal tasks. Participants enjoy their personal time on the bus, and carried objects and mobile technologies are important in facilitating different activities during this time (i.e. music/reading to relax, phone-calls/texts to organise personal tasks).
  - Control: Travel-time activity is also used by some to control (often negative) experiences of the journey; particularly boredom, stress, and social discomfort (often linked to a lack of a sense of personal space). Engaging in activity and using the carried objects and technologies that are to hand can speed up the real duration of the journey and provide a distraction from the onset of boredom. In other cases, activities are used to shield passengers from unwanted social interaction, and in particular, personal music players are important to passengers in allowing them to control the sensory environment and tacitly demarcate personal space.
  - Socialising: Social activities on the bus create very positive experiences when they are desired. Participants’ unanimously like chatting to people that they know. Chatting to others can also help to share around negative experiences and is a method of reducing their potency. The opposite experience is created when social interaction is not wanted, and there is a tension in the social space between those that wish to socialise and meet new people, and those that wish to be left alone.

- The quantitative data demonstrates a far weaker relationship between travel-time activity and journey experience. Few travel-time activities have a statistically
significant association with journey experiences and service perceptions, and none of these are consistent. The quantitative data suggests that other factors are of more primary significance – punctuality, age, and social disposition.

- The findings suggest that whilst travel-time activity is shown by the qualitative data to have an influence upon journey experience, it does not form part of the common formation of perceptions of the bus, and particularly the positive benefits of travel-time are most often only drawn out through discussion and reflection.
5.3 Differences in activity and experience between individuals and groups

This section presents the data related to Research Question 3. Following the findings presented in the previous sections, this question seeks to address the subjectivity of travel-time on the bus, and to provide explanations for the differences in activity, experience, and perception between different individuals and groups on the bus.

5.3.1 Qualitative data

Participants’ qualitative discourses provide explanations for the ways in which the experience of travel-time varies between different passengers. They highlight the subjectivity of travel-time and provide in-depth insight into the different meanings that participants attribute to their experiences of travel-time activity.

Subjective variation – same tools, different job

In discussion, participants’ discourses served to highlight that every different activity on the bus – and every carried object or ICT used by passengers – can perform different experiential functions on the bus dependent upon the individual, and the context in which they are engaged in. Therefore the way in which people fundamentally perceive and conceptualise what their travel-time is – and what it can be put to use for – affects their experience of the journey and subsequently their motivations for engaging in a specific activity. As one participant noted:

‘Only boring people get bored!’ (Male participant – Bus user group)

To provide an example, the extracts below illustrate the different functions of the same activity – listening to music. Some participants reported listening to music to feel relaxed during time-out on the bus:
‘Like sometimes it’s good just to zone out, and to just... well I use my music to zone out, and just sit there and forget about everything...’ (Female participant – Bus Tales)

‘Yeah, it’s just going on the same point of listening to music on the bus. Because usually I just have it on in the background, but then when I’m on the bus I can just really chill out to it and listen to it.’ (Male participant – Bus Tales)

Another participant reported using music during travel-time to “enliven” him at the start of the day, and to unwind on the way home:

‘If you’re feeling a bit knackered and you need to wake up you can listen to something really lively, but if you’ve had a long day and just want to relax you can just put something really chilled on, so it’s actually going to affect your mood when you get off the bus and throughout the duration of your journey.’ (Male participant – Bus user group)

As discussed previously, several passengers used music to compress their experience of travel-time:

‘I listen to music on my iPod on the bus. I also sometimes use my mobile to talk or text. I do these things to make the journey seem quicker.’ (Female participant – Bus Tales)

Other participants listened to music specifically to avoid the negative intrusions of the sociality into their space:

‘I’d have said I’m more likely to use music if it’s busier. Because there are more people around you, so kind of to compensate for that.’ (Male participant – Bus user group)

Thus, travel-time activities on the bus are not mutually exclusive to either creating positive experiences of time-out or mitigating negative experiences. What is of greatest importance to the ways in which travel-time activity influences experience and perception is what passengers perceive their time on the bus to be. If the journey is
seen as a piece of personal time then reading, listening to music, texting, chatting, and browsing the internet help facilitate this experience; if it is a boring chore that must simply be endured then these same activities serve as a means of displacing some of the negative affect that is experienced as a result; if it is a piece of social time then these activities are forgone in favour of talking to others.

‘I suppose it's very much a circumstantial thing as to what I get up to as I said before. If I'm stressed out then I find that my journey feels a lot longer and the opposite when I'm not. This I imagine can be related to all sorts of different activities.’ (Male participant – Bus Tales)

This thesis holds that that what is of most significance in influencing journey experiences and service perceptions is the subjectivity of the passenger and their personal experiences, perceptions, and attributions of travel-time on the bus. It is primarily this that directs travel-time activity, not vice versa.

Following these qualitative findings, the issue of the subjectivity of travel-time experience was explored further in the survey. The questionnaire form (see: appendix 9.6, p. 355) asked participants to provide some personal information, which enabled an analysis of the variation in travel-time use and journey experience amongst different groups of passengers on the bus. Thus, where the qualitative data has provided explanations of subjectivity through the different meanings of travel-time to different individuals, the quantitative data presented in the following section explores variation at the aggregate level between passengers with similar demographic characteristics.
5.3.2 Quantitative data

There are strong age-related divides in many aspects of the bus related to travel-time activities, the use of carried objects (particularly the use of mobile technologies and ICTs), general perceptions, attitudes towards the social environment of the bus, and in journey experiences. These findings are important because they demonstrate that passengers of different ages on the bus have significant variation in their experiences and perceptions, and also that travel-time activities which passengers of some ages find positive can negatively affect the experiences of passengers of other ages. This final section presents the findings of several $\chi^2$ analyses that provide the evidence for these disparities, which are expanded upon in relation to existing research in the discussion chapter. Whilst other factors such as journey purpose, route, and the time of day had some significant associations with these variables, these can all be linked back to age – with passengers’ journey purposes, routes, and times of travel all having significant ($p < 0.05$) associations with the age variable.

Age-related differences in perception and journey experience

In terms of journey experience and service perception, age is the most important source of variation between different groups of passengers. There is a strong and significant distinction between the perceptions and journey experiences of passengers of different ages on the bus. For this analysis, the age ranges have in some instances been grouped into three categories (16-24, 25-54, 55+) to improve clarity. These three groupings reflect the greater commonality in responses between respondents from the original 6 categories. Chart 9 below shows this significant difference in perception ($p < 0.01$).

The chart shows that for passengers in the youngest age cluster, the majority are indifferent (51.1%), and there is a relatively even split amongst those that like the bus

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There is heterogeneity of activity between the age categories means that clustering the original age groups into more simple – younger (16-24), middle (25-54), and older (55+) – categories in this question sacrifices resolution between some of the age categories. Therefore discussion of difference in activity refers predominantly to the trends from young-old and vice versa, whilst focusing on specific age groups where necessary.
(20.7%) and those that don’t like the bus (20.1%). For the older age cluster however, this result is significantly different. Here the highest proportions like the bus (48.4%), whilst only very small proportions don’t like the bus (3.1%). There are also significantly more passengers from the older age cluster that really like the bus (14.1%), and nobody from this age cluster reported really disliking it. This is in contrast to the youngest age cluster in which only 3.1% really like the bus, and 5% really don’t like it.

The data for journey experience produces a similar finding. Chart 10 – Chart 13 demonstrate the same trend occurring in participants’ responses to Question 5 of the survey (see: appendix 9.6, p. 355). All of these findings show that as age increases,
participants are reporting a significantly more positive journey experience across each experiential category ($p < 0.01$). These findings suggest that there are wider influences on passengers’ perceptions and experiences of the bus which are not specifically related to aspects of the bus itself, but which might be indicative of generational or cohort effects which are manifesting on the bus. These findings demonstrate that age is a key factor in experiences of travel-time on the bus.

**Chart 10 - Age differences in survey participants’ reported journey experience (enjoyable/boring) (n = 729)**
Chart 11 - Age differences in survey participants’ reported journey experience (relaxing/stressful) (n = 737)
Chart 12 - Age differences in survey participants’ reported journey experience (comfortable/uncomfortable) (n = 764)
Chapter V – Results

Chart 13 - Age differences in survey participants’ reported journey experience (useful/wasted) (n = 734)

This thesis suggests that the age-related disparities observed on the bus are influenced by wider social trends. Nonetheless, there are aspects of travel-time use and the social environment on the bus which are also strongly delineated by age, and which can help to explain this observed disparity in experiences and perceptions of the bus. These are discussed in the following section.

**Age-related trends in travel-time activity, mobile technology use, and social activity**

This section explores differences in the range and types of travel-time activity, the levels of carrying and use of mobile technologies, and differences in the social
interactions of passengers of different ages.

A $\chi^2$ test was conducted to analyse the relationship of age with travel-time activity, and there are several statistically significant ($p < 0.05$) associations. The variation in activity type and range amongst respondents is most markedly between the youngest category (16-24) and the oldest (55+). Broadly speaking, as age increased respondents were engaging in fewer activities per-journey, and furthermore engaging in a more restricted range of activities as-a-whole. However, there are several exceptions to this trend, and the distinction is not always so clear-cut.

The activities that respondents report on the bus are not entirely distinct by age group – possibly related to the restricted activity options that the bus offers. There are several “core” activities that are reported by high proportions of individuals all ages, these are:

- Reading the Metro
- Window-gazing
- Talking
- Thinking/contemplating
- Daydreaming

As age increases, the range of activities that individuals engage in narrows. The activities listed above are common in relatively high proportions to all of the age groups; however, these are the only activities which are reported frequently amongst the oldest age category (65+). Table 10 demonstrates this trend, showing how the range of activities engaged in narrows as age increases. Table 10 presents all activities reported by >15% of participants in each age group.

There are some exceptions to this trend. For example, reading for leisure is particularly high amongst those aged 45-64, followed by those aged 25-34, and yet lower amongst the youngest and the older (55+) age categories, where the proportions are almost identical. For talking to others, the proportion is high amongst the oldest age category
but then falls sharply through the middle age ranges, before picking up amongst the youngest.

<table>
<thead>
<tr>
<th>16-24</th>
<th>(%)</th>
<th>25-54</th>
<th>(%)</th>
<th>55+</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro</td>
<td>33.7</td>
<td>Metro</td>
<td>45.5</td>
<td>Metro</td>
<td>30.4</td>
</tr>
<tr>
<td>Talking</td>
<td>26.1</td>
<td>Talking</td>
<td>15.8</td>
<td>Talking</td>
<td>18.5</td>
</tr>
<tr>
<td>Daydreaming</td>
<td>54.6</td>
<td>Daydreaming</td>
<td>40.2</td>
<td>Daydreaming</td>
<td>28.1</td>
</tr>
<tr>
<td>Window-gazing</td>
<td>61.5</td>
<td>Window Gazing</td>
<td>59.3</td>
<td>Window-gazing</td>
<td>69.6</td>
</tr>
<tr>
<td>Thinking/contemplating</td>
<td>50.4</td>
<td>Thinking/contemplating</td>
<td>45.9</td>
<td>Thinking/contemplating</td>
<td>38.5</td>
</tr>
<tr>
<td>Music/radio</td>
<td>54.6</td>
<td>Music/radio</td>
<td>27.3</td>
<td>Music/radio</td>
<td>27.3</td>
</tr>
<tr>
<td>Text/phone-call</td>
<td>60.2</td>
<td>Text/phone-call</td>
<td>28.7</td>
<td>Text/phone-call</td>
<td>28.7</td>
</tr>
<tr>
<td>Eating/drinking</td>
<td>15.0</td>
<td>Eating/drinking</td>
<td>15.0</td>
<td>Eating/drinking</td>
<td>15.0</td>
</tr>
<tr>
<td>Browsing the internet</td>
<td>31.5</td>
<td>Browsing the internet</td>
<td>31.5</td>
<td>Browsing the internet</td>
<td>31.5</td>
</tr>
<tr>
<td>Social networking</td>
<td>25.7</td>
<td>Social networking</td>
<td>25.7</td>
<td>Social networking</td>
<td>25.7</td>
</tr>
<tr>
<td>Being bored</td>
<td>33.3</td>
<td>Being bored</td>
<td>33.3</td>
<td>Being bored</td>
<td>33.3</td>
</tr>
</tbody>
</table>

Table 10 - Age differences in survey participants’ reported travel-time activities

Whilst daydreaming is an activity that a relatively large proportion of respondents of all ages reported, there is a linear trend within this activity from young-old. A high proportion of young people on the bus report daydreaming (54.6%), and this proportion reduces to 24% amongst those aged 65+. For thinking/contemplating, a relatively high proportion of individuals in all the age groups report this activity, with the same being true for window-gazing/people watching. This activity is the most popular of those which respondents from the oldest age category engage in; approximately 70% of those aged 55+ reported window-gazing.

For those activities which require the use of mobile ICTs the age distinction is very clearly drawn. High proportional responses are reported by the younger age category for listening to music (54.6%), making personal texts and phone calls (60.2%), surfing the internet (23.3%), and using social network sites (25.7%). In the same respective activities in the 55+ age category, fewer than 2% in total reported engaging in any of these, with nobody from this age group accessing the internet in any way. In respects
of the more technologically focussed of the activities, there is greater consistency between the 16-24 and 25-34 age groups than elsewhere, and the trend from 35+ is a sharper decline than seen for other activities that decrease with age. Only approximately 3% of participants aged 35+ had accessed the internet, with no individuals from this group having been on social networking sites – a stark contrast to the 25.7% of younger people reporting these. This is discussed in greater detail in Section 6.3.2 (p. 264).

Finally, eating and boredom follow a significant negative trend from young to old. Younger people report far more instances of eating on the bus than older people, and this result is linked in to later discussion of the acceptability of eating on the bus amongst the different age-groups in Chapter VI. Boredom – in line with the overall perception of the bus discussed in the following section – declines as age increases; although as mentioned earlier in this section, there is a spike in boredom amongst those aged 45-54. It is interesting to note that the younger age group of participants that is engaging in a broader range of activities is also reporting greater incidences of boredom during journeys. Later discussion in relation to existing research considers this in relation to other generational effects that are evident within the data, and considers potential explanations for this somewhat counter-intuitive finding.

As age increases the number of activities that respondents engage in per journey also decreases, as Chart 14 demonstrates (p < 0.01). It is evident that the youngest age cluster has a significantly larger proportion of individuals conducting a higher number of activities (p < 0.01) – with 10.4% conducting as many as between 10 and 19 activities per journey. By contrast the oldest age cluster has a significantly larger proportion of individuals engaging in a lower number of activities per journey, and indeed no participants in this cluster had conducted over 7 activities per journey, and only 9.6% had conducted between 5 and 7 activities.
To illustrate this trend further, the data shows that the youngest age cluster (16-24) is conducting a mean average of 5.27 activities per journey, with a mode average of 5. Those in the middle age cluster (25-54) are conducting a mean average of 3.95 activities per journey with a mode average of 3. The oldest age cluster (55+) is conducting the fewest activities per journey, with a mean average of 2.62 and a mode average of 2.

A $\chi^2$ test was used to test the relationship between age and the items used during the journey. Several statistically significant associations have been identified ($p < 0.05$). Again, the age ranges have been clustered into three categories (16-24/25-54/55+) to
improve clarity. The variation in the number and type of items used by respondents is most markedly between the youngest category (16-24) and the oldest (55+). Again broadly speaking, as age increased respondents were using fewer items per journey, and furthermore carrying a more restricted range of items as-a-whole. Discussion above has highlighted however that there are fewer items being used on the bus when compared to activity, and some distinct patterns emerge from the data in relation to this. Table 11 reports the findings for the significant variations between the age groups.

<table>
<thead>
<tr>
<th>Item used</th>
<th>16-24 (%)</th>
<th>25-54 (%)</th>
<th>55+ (%)</th>
<th>Sig. (p &lt; X)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro newspaper</td>
<td>32.6</td>
<td>42.6</td>
<td>31.1</td>
<td>0.05</td>
</tr>
<tr>
<td>Food/drink</td>
<td>13.0</td>
<td>7.2</td>
<td>4.4</td>
<td>0.05</td>
</tr>
<tr>
<td>Personal music player/radio</td>
<td>46.7</td>
<td>23.0</td>
<td>4.4</td>
<td>0.01</td>
</tr>
<tr>
<td>Other newspaper</td>
<td>0.4</td>
<td>2.9</td>
<td>5.2</td>
<td>0.001</td>
</tr>
<tr>
<td>Textbook</td>
<td>4.1</td>
<td>5.3</td>
<td>0.0</td>
<td>0.05</td>
</tr>
<tr>
<td>Mobile phone</td>
<td>72.2</td>
<td>41.1</td>
<td>8.9</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Table 11 - Age difference in carried objects used during a journey reported by survey participants

Those participants in the middle age group are using the Metro newspaper significantly more than younger and older passengers. For food and drink, a clear trend is evident from young to old, with the youngest age cluster using food and drink significantly more than the older participants. Younger passengers are using personal music players more than older passengers. A reverse trend is evident for other newspapers (besides the Metro) however, with the oldest age group using these items more than the younger group. Textbooks are split by age, with both of the younger age groups using these more than the oldest. This can be explained by the relative disparity in the purpose of passengers’ journeys however, where it is evident from the
data that younger passengers are travelling significantly more for the purposes of education than older passengers. Finally, the vast majority of younger passengers are using mobile phones on the bus (72.2%), whereas only a relatively small minority (8.9%) of older passengers are using these items.

There is again variation not only in the type of items used by passengers, but also the number used per journey. However this distinction is less starkly drawn than in the case of activity. The data demonstrates that the youngest age cluster (16-24) is using a mean average of 1.78 items per journey, with a mode average of 1. The middle age cluster 25-54) are using a mean average of 1.39, with a mode average of 1. The oldest age cluster (55+) is using a mean average of 0.69 items per journey, with a mode average of 0. This again demonstrates the disparity between the number and range of activities being conducted compared to the number of items used. The variation in the number of activities engaged in is greater that the variation in the number of items used.

These findings demonstrate that there is an observable “technology divide” on the bus. Particularly in reference to emergent ICT mobile technologies, the finding is that a very high proportion of younger people are carrying and using these items on the bus, and conducting a range of activities with them. Conversely, relatively low proportions of passengers in the older age groups are carrying these items, and even fewer are engaging in the activities that they facilitate on the bus. These findings are significant to \( p < 0.01 \), and presented in Chart 15. 54.6% of participants in the youngest age cluster (16-24) listened to music on their journey, compared with 4.4% of those participants aged 55 and above. 60.2% of 16-24 year olds had made a phone-call or sent a text message, again contrasted against 4.4% of those aged 55 and above. 31.5% of younger passengers had accessed the internet during their journey, and in comparison, nobody aged 55 and above had engaged in this activity. There is a similar finding for those accessing SNSs through a mobile ICT device, 25.7% of 16-24 year old participants had engaged in this activity, whilst nobody aged over 55 had done so; indeed in this activity there were no participants over the age of 35 that had engaged.
Finally, whilst the proportions of passengers in all age groups that had checked their emails was low, the same trend is nonetheless evident with 11.7% from the youngest age cluster engaging, compared to 2.2% of those aged 55 and above. This finding can be linked to the discussion of the different reasons for travel-time activity presented in the previous section. Where younger passengers are reporting higher levels of activity and greater use of mobile technologies, this is suggested to be a symptom of their negative experiences. Travel-time activity is used by many younger passengers as a way of attempting to attenuate their negative experiences of the journey. This finding is developed further in relation to existing research in Chapter VI.

Furthermore, there is a significant disparity in the proportion of passengers that are carrying mobile phones and not using them during their journeys ($p < 0.01$). In the youngest age group (16-24), 82.6% of passengers that were carrying a mobile phone with them used it during their journey. In the middle age group (25-54) 55.1% of passengers that were carrying mobile phones had used them. In the oldest age group (55+) only 25% of those carrying a mobile phone had used it at some point during their

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Listening to music/</th>
<th>Texting/phone-calls (personal)/</th>
<th>Accessing the internet/</th>
<th>Accessing social network sites/</th>
<th>Checking emails/</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-24</td>
<td>54.6</td>
<td>60.2</td>
<td>31.5</td>
<td>25.7</td>
<td>11.7</td>
</tr>
<tr>
<td>25-54</td>
<td>27.3</td>
<td>28.7</td>
<td>14.4</td>
<td>8.6</td>
<td>10.5</td>
</tr>
<tr>
<td>55+</td>
<td>4.4</td>
<td>4.4</td>
<td>0</td>
<td>0</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Chart 15 - Age differences in survey participants' technology use on the bus

![Technology use by age chart](chart.png)
journey. This result is compounded by a lower proportion of older passengers carrying a mobile phone, and helps to explain the very low use of mobile phones by older passengers; it is not only that fewer people are carrying them, but also that proportionally fewer older passengers are willing to use them during their journey.

These findings link to data on participants’ subjective evaluations of the acceptability of certain activities during travel-time, which can be used to help explain the findings in this section. Question 8 and Question 9 in the questionnaire survey (see: appendix 9.6, p. 355) asked participants to rate their feelings on how happy/comfortable they would feel conducting certain common activities on the bus, and also how they would feel about other people doing these.

There is a significant difference between how happy/comfortable participants of different ages feel with these activities being conducted on the bus. Chart 16 – Chart 19 present this data, all findings are significant to \( p < 0.01 \). For clarity, the data have been grouped into three categories; the same trend is evident in the un-grouped analysis and again significant to \( p < 0.01 \).

These results show that participants in the youngest age group are significantly more happy/comfortable than the oldest age group with activities related to the use of mobile technologies and ICTs – making phone-calls and listening to music – and also of eating and drinking during the journey. However, in terms of the social activity of talking to strangers, this trend is reversed; here it is the older cluster of passengers that are the most happy/comfortable doing this activity, and both the younger and the middle age clusters are significantly less happy doing this activity on the bus.

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36 These activities are: Making phone-calls; Listening to music; Using a laptop computer; Talking to strangers; and Eating/drinking.
Chart 16 - Age differences in participants’ perceived acceptability of phone use on the bus (n = 751)
Chart 17 - Age differences in participants’ perceived acceptability of music on the bus (n = 749)
Chart 18 - Age differences in participants’ perceived acceptability of talking to strangers on the bus (n = 753)
The results from Question 9 are consistent with these trends, and show that, generally, passengers that are happy to conduct a certain activity themselves on the bus are also happy for other passengers to engage in them too. However in terms of talking to strangers, the finding is that whilst passengers in the younger and middle age clusters are not happy/comfortable engaging in this activity themselves, they are relatively accepting of other passengers doing it ($p < 0.01$).

These findings suggest an important distinction in passengers’ experiences of the social environment within the bus, and their engagement with activity and other passengers within this space. Many younger passengers are more comfortable using ICTs, but less
comfortable talking to strangers. In reference to earlier discussion this suggests that the social experience of the bus for some younger people is typified by disengagement from the immediate social space of the bus and virtual engagement with their wider social groups through the use of ICTs. It is evident also that the use of emergent technologies on the bus might be changing the experience of the journey in a negative way for older passengers that have experienced the bus environment both with and without these activities, and are more used to engaging with the social spaces of the bus; younger passengers who have grown up and moved into bus use during the lifetimes of these new technologies have not experienced this change, and are merely extending their wider socio-technical routines into the bus environment. Furthermore the finding related to eating and drinking on the bus suggests that there is a shifting social norm surrounding the acceptability of eating in public places. Finally, in terms of the disparity in the perceived acceptability of talking to strangers on the bus, the suggestion is that older passengers are more willing to engage with the public nature of the bus environment, one feature of which is the interaction with strangers – which is a constant possibility. A further finding in this respect shows that whilst data presented above demonstrates that passengers in the younger age group are engaging in talking to others in approximately the same proportions as those in the older age cluster (26.1% and 28.1% respectively), the range of people that younger passengers are talking to is significantly reduced, as Chart 20 below shows (p < 0.01).

Disregarding the data for those passengers that spoke to nobody, it is evident that the vast majority of younger participants that are talking to other people on the bus are talking to friends. Conversely, passengers in the oldest age cluster are talking to a broad range of people on the bus that they are acquainted with to varying degrees.
These findings are particularly pertinent when considered in relation to the results presented in Section 5.2.2. The use of mobile technologies and travel-time activity had minimal influence on passengers’ journey experiences and perceptions of the bus in comparison to the influence of a willingness to engage with the social environment of the bus through a feeling of comfort in talking to strangers. This supports the earlier finding that a person’s subjective disposition to the sociality of the bus environment is one of the key factors in the creation of journey experiences, over and above the travel-time activities they engage in on the bus.

The quantitative data develops the findings generated by the qualitative discourses, and demonstrates that there are patterns evident within the individual subjectivity of

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**Chart 20 - Age differences in the reported range of people to whom participants spoke during a journey**

Who have you spoken to?
- Nobody
- Family
- Friends
- People I see on the bus often but don’t know
- Strangers
- Work colleagues/other acquaintances

---

Percent

Age range (clustered)

0.0% 20.0% 40.0% 60.0% 80.0%
travel-time experiences on the bus. Where the qualitative data has been important in providing in-depth explanations of the different meanings of travel-time to different individuals, the quantitative findings show that passengers of similar ages share common experiences with one another that are distinct at the aggregate level from those of passengers of different ages. These age-related findings are developed further in the discussion chapter.

5.3.3 Key findings

Below, the key findings from this section are summarised:

- The qualitative data explains the individual subjectivity of travel-time activity and journey experience. Activities are conducted for a range of reasons, and these lead some of the same activities to create different experiences of travel-time for different people – or even for the same person at different times. What is of most importance in directing the relationship between travel-time activity and journey experience is what a person perceives their travel-time to be.

- The quantitative data has explained that there is a pattern evident within this subjectivity. Passengers of different ages have significantly different activity routines, perceptions, and experiences.

- There is an evident “technology divide” between younger and older passengers. High proportions of younger passengers are using mobile technologies and ICTs (for listening to music, making phone calls, accessing the internet), where very small proportions of older passengers were doing the same.

- Older passengers and younger passengers have different ideas of what is and isn’t acceptable on the bus. Younger people are significantly more comfortable with themselves and others making phone-calls, listening to music, and eating and drinking. Older passengers are significantly more comfortable talking to strangers on the bus. This suggests a changing social norm on the bus from engagement with the immediate social space to engagement with wider social networks through ICT use.
Older passengers report a narrower range of activities, and are conducting fewer distinct activities per-journey than their younger counterparts. However, older passengers report significantly better perceptions and experiences of the bus.

Younger passengers’ high levels of activity and worse experiences and perceptions suggest that activities are a symptom of negative experiences and are conducted as an attempt to offset these.

5.4 Chapter summary

This chapter has presented the new empirical data generated in this thesis from the qualitative and quantitative data collection. The findings have been grouped into sections related to each of the research questions addressed by this thesis.

Initially, the common types of activity reported on the bus were explored, alongside a discussion of the ways in which the specific spatial, temporal, and social aspects of the bus environment dictate what travel-time can be put to use for. There is consistency between the qualitative and quantitative datasets. A range of activities are common during the bus journey: listening to music, reading, window-gazing, sending text messages, making phone-calls, using the internet, people watching, and talking to other passengers were all reported by high proportions of participants. The carried objects and mobile technologies that travel with passengers are often used to facilitate activities – with mobile phones, smartphones, personal music players, newspapers, and books reported most frequently. The findings show that this range of activities and items are particularly suited to the bus journey. There are five factors which influence what travel-time can be put to use for, and these are related to the physical space available, the length of the journey, the sociality within the bus, passengers’ subjective preferences, and comfort issues such as travel sickness. There is evidence that emergent ICTs such as smartphones are expanding the activity potential of bus passengers, however at the same a sizeable proportion of passengers do not feel comfortable with themselves or other using these during travel-time.
The activities and items used during travel-time can influence how passengers experience their journeys. However the findings also show that there are other factors which are of more primary significance than travel-time activity in creating perceptions and experiences of the bus. In this respect the qualitative and quantitative data show different perspectives on the issue. The qualitative findings demonstrate that activities influence the experience in one of three ways: through creating a sense of personal time, through helping to attenuate negative experiences encountered along the journey (boredom, stress, and social discomfort), or through socialising. The quantitative data demonstrate however that there are only inconsistent significant relationships between travel-time activities and passengers’ perceptions and experiences. Other factors are more influential in creating experiences, with punctuality, age and a person’s comfort within the social environment being of more primary concern.

Throughout the findings the subjectivity of travel-time is evident. The bus journey means different things to different people, and different activities and objects can create different experiences for different people. This being said, there is a trend within this subjectivity which demonstrates that there is a significant difference in the ways in which older and younger passengers use and experience this time. Older passengers report a narrower range of activities (in particular activities which require the use of mobile technologies and ICTs), and yet have significantly better experiences and perceptions than younger passengers. Younger passengers were doing more to disengage themselves from the bus environment through the use of technology, often reengaging with their wider social networks through the virtual communications facilitated by ICTs.

Thus, there is much complexity in the relationship between activities, technologies, experiences, and perceptions. Having outlined the data and findings, the following chapter synthesises the qualitative and quantitative findings, it unravels the complexity of travel-time and explains the findings in the context of existing research.
6.0 Discussion

Chapter V has presented the key findings that were generated from the qualitative and quantitative data. This chapter draws together these findings into a combined discussion that is developed through an engagement with existing research, and which explains the new knowledge that has been generated in this thesis. This chapter follows the format of the last, and is structured to move through the research questions and provide a discussion of how the new empirical data address these.

This chapter therefore opens with a focus on the potential for travel-time activity on the bus, comparing this to existing research into travel-time use on the train. It focuses on the spatial, temporal, and social influences that the bus environment engenders, and considers the reasons that passengers engage in different activities and what their travel-time means to them. Following this, the discussion turns to explain the role of travel-time activity in the creation of journey experiences, and considers how passengers’ varied uses of travel-time can influence their subjective crafting of the journey. Within this section, different common experiences of travel-time are explored, with a focus on the positive benefits of personal time on the bus, the important mediatory function of travel-time activity, and the experiences of sociality and sociability during the bus journey. The third section explains the important sources of variation in the findings through developing the discussion of the subjectivity of travel-time, exploring in greater depth the roles that age and passengers’ relationship with the sociality of the bus environment can play in the creation of experiences and perceptions of the bus.

This chapter continues the discussion of the ways in which the findings from the qualitative data have evolved through the process of analysing the quantitative data, and discusses how the quantitative results have modified the findings generated from the qualitative discourses. As noted previously, the different forms of data generated through the quantitative and qualitative methods produce sometimes contrasting
explanations for the role of travel-time in the formation of perceptions and experiences.

The chapter concludes with a distinct section which seeks to frame the new knowledge generated in this thesis within the wider context of the bus as a service. As Chapter V has explained, both the qualitative and the quantitative datasets demonstrate that where travel-time activity is important in creating and mediating journey experiences, at the same time other factors such as service aspects, age, and feelings of social comfort are of greater significance – or more primary concern. Thus it is important to recognise where travel-time activity is positioned relative to these other factors. The final section of this chapter presents a “contingency map” of factors influential to journey experiences and service perceptions, and is dedicated to discussing the relationship between travel-time activity and these wider factors.

6.1 Activity on the bus

6.1.1 Travel-time activity in comparison to the train

Chapter V has explained the influence that the physical, temporal, and social qualities of the bus journey have upon the opportunity for travel-time activity. This thesis has found that there are several restrictions to activity related to the restricted physical space available within the bus, the duration of the journey and the frequency of stops, and passengers’ perceptions of what is “acceptable” activity on the bus. Despite these restrictions, travel-time activity on the bus appears not to be stifled to the degree that Watts and Lyons (2011) and Noble (2008) have asserted in their research. However, it is rather the case that such a restriction of physical/personal space engenders some different types of travel-time activity, which are enacted for a range of reasons. The current breadth and levels of activity occurring on the bus are in actuality not dissimilar to the train, as described by Lyons et al. (2011). Chapter V has highlighted
that there is a wide range of activities occurring on the bus: all of the activities included in the survey were engaged in by a proportion of passengers, and the findings from Bus Tales and the focus groups similarly demonstrate a breadth of activity occurring.

As discussed in Chapter III, findings from the most recent National Rail Passenger Survey show the activities in which rail passengers engage during their journeys (Lyons et al., 2011). In Table 12 below, these findings are compared with the survey results showing the travel-time activities of bus passengers.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Bus passengers (%)</th>
<th>Train passengers (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading for leisure(^{38})</td>
<td>49</td>
<td>54</td>
</tr>
<tr>
<td>Window-gazing/people watching</td>
<td>62</td>
<td>53</td>
</tr>
<tr>
<td>Texting/phone-call - personal</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>Working/studying</td>
<td>8</td>
<td>27</td>
</tr>
<tr>
<td>Listening to music/radio/podcast</td>
<td>39</td>
<td>20</td>
</tr>
<tr>
<td>Checking emails</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Eating/drinking</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>Texting/phone-calls - work</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Talking to others</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>Internet browsing</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>Sleeping/snoozing</td>
<td>9</td>
<td>14</td>
</tr>
</tbody>
</table>

Table 12 - Comparative levels of activity on the bus and the train (train data: Lyons et al., 2011, p. 2).

Lyons et al. (2011) present only those activities in which over 10% of passengers engaged, and it is evident that there is a similar range and level of travel-time activity occurring on the bus – whilst there are some differences in levels of individual

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\(^{37}\) Percentages rounded to nearest whole number.

\(^{38}\) Figure represents the combined sum of the “reading for leisure” and “reading the Metro” categories on buses.
activities conducted in the two different environments. For each activity the mode on which the highest proportion of passengers engaged is highlighted. There are an almost equal number of activities in which a higher proportion of bus passengers engage as there are for the train. These findings are indicative of those travel-time activities which are most suited to the different environments, and furthermore which this thesis holds to be resultant from differing desires for journey experiences on each – as explained throughout this chapter.

It is therefore a finding that the range and level of travel-time activity on the bus is not more limited than on the train, despite the relative restrictions that the qualitative discourses emphasise. The differences in travel-time activity on the bus and train can be partially explained by the different configurations of passengers within the spaces of the bus and the train carriage. Chapter III has discussed how the ability to unpack is suggested to influence the travel-time activities that are possible on-the-move. The ability to unpack is influenced by both the physical space that is available, and also the duration of the journey (Watts & Lyons, 2011; Watts, 2008). Watts and Lyons (2011) assert that being unable to unpack severely limited the possible activities and level of productivity that passengers experienced. This thesis finds this to be only partially correct in the context of bus travel. The findings of this thesis do not support the claim that being unable to unpack severely limits possible travel-time activities, but that Watts and Lyons (2011) are correct that an inability to unpack limits opportunities for economically productive activity (primarily working) during travel-time. In relation to this however, where the potential for economic productivity on the bus is low, the findings suggest that a proportion of passengers are “economically active” during their journeys through their consumption of consumer goods and media, and this notion is discussed further later in this section.

6.1.2 The influence of space, time, and sociality on activity

In developing this finding, this thesis recognises that the train has a greater proportion of passengers travelling for business purposes than the bus (see: Lyons et al, 2007,
2011; for bus journey purpose data see: Section 4.3.6), and that the different passenger profiles of the two modes in this respect will therefore contribute somewhat to the lower aggregate-level proportions of working (or economically productive) activities reported on the bus. However, there is evidence that the restricted spaces of the bus also have an influence on this disparity, as explained below.

At the aggregate level, Table 12 demonstrates that in comparison to the train environment – in which there is greater opportunity to unpack – levels of working on the bus are significantly reduced. Just 8.3% of passengers had worked/studied on the bus compared with 27% of passengers on the train (Lyons et al., 2011). More importantly however, when these results are disaggregated by journey purpose, this trend is again demonstrated. Amongst business travellers 17.3% of those travelling on the bus had been working on their journey. For business travellers on the train, this figure is 51.5%; three times as high (Holley et al., 2008). This indicates that the spaces of the bus are less conducive to working, and this is supported by the qualitative data presented in Chapter V which has demonstrated how this is related to a lack of space and consequent inability to unpack and use items such as laptops and paperwork with ease or comfort.

The duration and continuity of the journey are also important factors in passengers’ ability to unpack during travel-time. Local bus journeys – and local urban bus journeys in particular – are often characterised by frequent stops (Wilson, 2011). Indeed, it has been discussed in the methodology that when conducting the survey this was one of the specific challenges in securing a legitimate sample. The bus journeys of the survey were punctuated by stops at 2-5 minute frequencies, and the issue was raised also in the focus groups. Participants described how the relatively short journey times often negated the point in attempting to unpack, and explained how – alongside this – the constant flow of people onto and off of the bus can also prove disruptive to attempts to unpack more.

The bus is an environment in which restrictions upon both space and also journey time have a negative impact upon a traveller’s potential to engage in economically
productive travel-time use. However, the findings presented in Chapter V have explained that travel-time on the bus can often be useful or valuable to passengers for a variety of reasons, as time to organise schedules, complete personal tasks, or to simply relax and recover an essential piece of personal time within otherwise busy routines. This demonstrates the semantic split between the use of terms such as “productivity” and “use” in the travel-time use literature and this thesis.

This links to earlier discussion in the literature review with regards to positioning the new findings in this thesis relative to several pieces of existing research which have considered travel-time use specifically as economically productive time (see: Lyons & Urry, 2005; Lyons et al., 2007; Holley et al., 2008; Lyons et al., 2011). This thesis is not concerned with attempting to define an economic valuation of the time people spend on the bus, but rather an account of travel-time activity and its relationship with individual journey experiences and perceptions of the service. Therefore where Watts and Lyons (2011) findings would suggest that the bus is a place in which there is low potential for travel-time to be put to productive use, the above discussion explains that this is found not to be consistent outside of the economic context. There is a range of personally positive or even productive activity occurring on the bus.

Furthermore, it was suggested earlier in this section that whilst the opportunity for economic productivity is low, many passengers can nonetheless be argued to be economically active during their travel-time through the consumption of consumer goods and services. Where the current method of valuing travel-time assumes that all time spent travelling is wasted and a disutility to the economy (see: DfT, 2011b), many of the travel-time activities that participants spoke of involve some type of economic activity, and the increasing levels of connectivity facilitated by emergent ICT technologies is expanding this potential. It has been discussed in chapters II and III how bus travel is ingrained with the ordinariness of everyday routine (Jain, 2009; see also, Noble, 2008), and travel-time activities on the bus can also be seen to encompass to a certain degree the wider quotidian practices of consumption in modern society (for example, see: Paterson, 2006 for a discussion on consumption as a part of everyday life). It is suggested that travel-time on the bus might be encouraging come kinds of consumption because the journey often provides a dedicated piece of time each day in
which passengers consume goods (mobile phones, music players, food and drink), media (newspapers, books, songs, podcasts, online content, apps), and even potentially services (for example through online shopping).

This concept is one which has not been considered in existing research into travel-time use more generally – however, it is not clear how possible it would be to link the consumption of consumer goods and media during travel specifically to an economic value of travel-time. As has been emphasised, the wider economic implications of travel-time do not contribute significantly to addressing the research questions, and furthermore the development of the discussion of the relationship between travel-time activity and subjective journey experiences. Thus this finding is a potential consideration for further research, and is discussed as such in the conclusion chapter.

Time use on the bus therefore generally involves activities which require little unpacking, and do not necessitate a long journey in which to conduct them. Accordingly, the carried objects and mobile technologies most often used during travel-time on the bus are “everyday” personal items which are usually readily to hand (or even provided for passengers – in the case of the Metro newspaper), hand-held, and require little additional space for use.

It is evident from the data that the use of mobile technologies and ICTs on the bus is high, and the use of these technologies – particularly advanced mobile phones and smartphones – can help to explain the breadth of activity occurring within the restricted spaces of the bus. The use of emergent ICT technologies of increasing capability and decreasing size is allowing some passengers on the bus to be increasingly “equipped” for travel-time activity without the necessity of the opportunity to unpack. As noted in Chapter V, this is predominantly true of younger passengers, and the disparity in ICT use between the different age groups is discussed further in Section 6.3.2 (p. 264). Therefore in relation to the wider travel-time use research, it is pertinent to mention that the use of mobile ICTs such as smartphones by passengers has a particular relevance to the context of bus travel in comparison to the train and the car because of the restricted spatial nature of the environment.
The quantitative data show that the most popular mobile technologies in use amongst passengers are mobile phones and portable music players. It is noted in the literature that these emergent technologies increasingly allow for a broader range of travel-time activities. Lyons and Urry (2005) have previously indicated the potential of mobile ICTs in this respect, and more recently studies by Line et al. (2011) and Ettema et al. (2012) have discussed the advent of the smartphone, which allows the use of a vast range of mobile applications – or “apps” – and seamlessly integrates full internet connectivity into time spent on-the-move.

How comfortable a person feels conducting an activity in the social space of the bus is an important issue. This thesis has taken a novel approach to exploring acceptability by asking passengers how comfortable they felt with conducting certain activities themselves – as opposed to only their views of other passengers. This has not been explored in existing research, and it is evident that how socially acceptable some participants perceived their own actions to be was an influential factor to certain types of activity. Chapter III has explained how different affective atmospheres within the spaces of the train may be conducive to different forms of activity (Bissell, 2009). On the bus the affective experience of the social environment can have the effect of limiting the activities in which passengers feel comfortable engaging. For these passengers, the desire for an experience of affective comfort on the bus (see: Stradling et al., 2007) leads them to not engage in certain activities which are nonetheless popular amongst other passengers. Participants explained how particular activities – particularly making phone-calls, listening to music, talking to strangers, and eating/drinking – were unacceptable in public because of the intrusion they imposed on other passengers’ experiences.

There has been much academic interest in the ways in which social norms direct people’s actions, and furthermore how prevalent norms within society are in a state of flux (for a small sample, see: Sherif, 1936; Pepitone, 1976; Triandis, 1994; Cialdini & Trost, 1998; Sunstein, 1996). Different social groups have different norms, and the intense coming together of people from many walks of life on the bus often has the effect of bringing together conflicting ideas of what is and is not acceptable activity during travel-time. Discussion by Nash (1975) of the commuter stance on buses is an
example of the ways in which people collectively negotiate their travel-time behaviours, and his research suggests that over time specific “bus norms” have developed in relation to how people arrange themselves within the space. However, the findings in this thesis show that “bus norms” surrounding travel-time activity are not consistent or commonly agreed upon. On the bus, this is one of the most common causes of tension between passengers, sometimes creating the ‘misanthropic dispositions’ described by Bissell (2010) and limiting the activities that some passengers feel comfortable engaging in. One participant on Bus Tales noted that:

‘Everyone has different ideas of what is and isn't acceptable on the bus, and I reckon this can make for quite an interesting bus journey, in a good or a bad way.’

(Male participant – Bus Tales)

As has been discussed in Chapter V, these findings are influenced particularly strongly by age, with older passengers generally less comfortable with both themselves and others making phone-calls, listening to music, and eating/drinking; whilst younger passengers are less comfortable talking to (and being talked to by) strangers. This is an apt example of the different social norms held between different groups of individuals, and also suggests that travel-time activities on the bus are an embodiment of a generational change in the social norms which govern the ways in which people behave in public places. Ito (2003) has explored the technology practices of young people in Japan, and with particular relevance to mobile technology use, has noted that the older generation often views the recent technological proliferation amongst the younger generation with scepticism. The new social practices these devices enable are seen as “loose” in terms of commitments to time and place’, and engender a slackening of manners (Ibid, p. 2).

A similar divide is evident between older and younger passengers during travel-time on the bus, and it is evident that young people’s use of mobile technology is potentially re-configuring the norms around engagement with public spaces, and what is seen as acceptable behaviour or “good manners” on the bus. Ito (2003, p. 3) explains that:
'Even as these practices challenge existing norms of propriety and place, they set up new manners and ways of being together. There are new senses of place being constructed as a hybrid between co-located and remote social contact’.

Therefore the changing social norms on the bus of what is and isn’t acceptable behaviour has the effect of influencing the travel-time activities that different individuals will conduct during their journeys.

This generational divide and the feelings of discomfort that some activities can engender for different passengers are discussed in greater depth in the final section of this chapter, which explains the differences in travel-time activity and journey experience between different passengers and groups of passengers on the bus (see: Section 6.3, p. 263).

Chapter V also explained that specific issues of comfort such as travel-sickness can have a limiting effect upon a passenger’s choice of activity. Whilst it is clear that this issue is relatively common, it is of such a specific nature as to contribute little more to the development of the discussion in this chapter beyond reporting its effects.

6.1.3 Summary

The discussion in this section is relevant to research questions 1(a) and 1(b). This thesis finds that there is the opportunity on the bus for a comparable level and breadth of travel-time activity as is reported in similar studies into travel-time use on the train. However the bus journey predisposes passengers to favour a slightly different range of activities to the train, suited to the spaces of the bus. The opportunity for travel-time activity on the bus is predicated upon the affordances of physical and personal space within the bus, and also what is feasible within the generally shorter and discontinuous nature of these journeys. Where travel-time activities require the use of carried items and mobile technologies, this predominantly involves items which passengers have easily to-hand, and which do not require them to unpack. In particular, emergent ICT technologies such as smartphones are increasing the breadth of possible activities,
especially in reference to internet connectivity and the various activities this facilitates. Moreover, individual potential for travel-time activity is influenced by the sociality of the environment and passengers’ individual perceptions of what is acceptable within the social environment of the bus. Finally, specific issues such as travel-sickness can also restrict a person’s potential to engage in certain activities on-the-move.

On the bus, travel-time activity is inextricably linked with the experience of the journey. During any journey by any mode, the way in which a person spends his or her time becomes a constitutive element of the experience. The previous section has highlighted that the space of the bus is one which exerts a physical, social, and affective influence upon the traveller – whether desirably or undesirably. As such, this thesis holds that any activity that is conducted whilst in this environment is conducted within the wider experience of being on the bus, in discontinuous motion, often in close proximity to others. These restrictions that the bus environment imposes therefore predispose passengers to particular types of travel-time activity, and furthermore dictate to a greater degree the common experiences of the journey that are evident between passengers. The following sections move to discuss the reasons that passengers engage in different travel-time activities in relation to the different ways in which the bus journey is experienced.

6.2 Travel-time activity and the formation of perceptions and experiences

6.2.1 Reasons for activity

The findings presented in Chapter V demonstrate that in terms of relative significance of travel-time activity to passengers, it is a case of: “experience first, activity second”. This means is that in the context of bus travel, an affectively comfortable or pleasant journey experience is of primary concern, and thus the travel-time activities that are available to them are engaged in dependent upon them complementing – or at least
not disrupting – these desired experiences of affective comfort. That is to say, there is no evidence in the data that passengers will purposefully engage in an activity that will reduce their affective comfort, despite it perhaps providing other potential benefits such as more productive output from the time (e.g. working). Whilst this logic may appear self-evident, it has not before been made explicit in the context of travel-time use on the bus. It is a foundational finding, and emphasises that it is primarily the experience of the journey that directs the types of travel-time activities in which passengers engage, not vice versa.

Stradling et al. (2007) have discussed this aspect of the bus journey experience, and Chapter III has introduced the notion of “tranquillity” as the overarching experiential desire of passengers. Tranquillity is used in this thesis to denote an affectively pleasant state (see: Russell, 2003) in which a passenger is comfortable in their surroundings. This thesis finds that for most passengers on the bus this state falls in the pleasant/deactivated quadrant of the circumplex model of affect (see: Figure 5, p. 69), which is associated with relaxation and time-out. For others the state falls into the pleasant/activated state, more associated with socialising. The following sections deconstruct the concept of a tranquil journey, and explain the different ways in which the travel-time activities of passengers influence the creation and maintenance of such an experience. This thesis therefore supports the findings of Stradling et al. (2007) – and also those of Mann and Abraham (2006) and Lyons et al. (2008) – which all assert underlying desires for affectively pleasant journey experiences.

Flamm (2005, 2004) has characterised travel-time on non-personal modes of transport into three categories of use: for productive activities, for relaxation or transition, or for social activities. This thesis finds that travel-time activity on the bus can be characterised into three broadly similar categories – however with some specific differences. On the bus, affectively comfortable journey experiences are primarily aided by travel-time activity in one of three ways: through ‘time-out/time-for’ (relaxation or personal time) activities; through activities for distraction/displacement (i.e. killing time and lessening the negative experiences of the journey – boredom, social discomfort, and stress); and through social activities. The following sections
explain the findings that relate to how travel-time activity on the bus is a factor in the formation of such an affectively desirable experience.

6.2.2 Creating positive experiences – relaxation, time-out, and time-for

As discussed in Chapter V, there is a disparity evident in the findings relating the relationship between travel-time activity and journey experience, with the qualitative data providing substantially more evidence for a positive experiential effect of travel-time activity than the quantitative data. This is an important issue in this thesis, and therefore this section goes into additional detail discussing how the different forms of data generated in this thesis (and the different methods by which they were collected) produced this outcome. Discussion in this section will highlight and explain the finding that there is significant complexity in attributing travel-time activities to the formation of positive or negative journey experiences. The findings of this thesis go some way in developing existing travel-time research, unravelling the complexity of the relationship between activity and experience, and assisting in reconciling the seemingly inconsistent perspectives found in existing research.

Chapter III has explained this tension in existing studies into travel-time use. In summary, the opportunity that travel-time on the bus affords for passengers to relax and have some ‘time-out’ is described by Jain and Lyons (2008) as one of the ‘gifts’ of travel-time; valued by passengers for the personal time it provides to engage in positive activities or to simply relax. ‘Travel can protect and cocoon the traveller and legitimises ‘time out’’ (Ibid, p. 86). Stradling et al. (2007) have discussed how many passengers describe the feeling of ‘switching off’, ‘zoning out’, and engaging in activities such as reading and window-gazing as a part of what makes an ideal bus journey experience. Conversely however, Ettema et al. (2012) have found that for public transport passengers, the activity of “relaxation” leads to a lower pleasantly deactivated state and a lower cognitive evaluation of the journey. They also find that the activities included under their umbrella category “entertainment” (reading, listening to music) can lead to a lower pleasantly activated state and a lower cognitive
evaluation of the journey. Therefore in contrast to Jain and Lyons (2008) and Stradling et al. (2007), Ettema et al.’s (2012) results assert that relaxation and entertainment activities at best have no effect on the experience of the journey, and at worst are associated with a more negative experience.

The results of the regression analyses in Chapter V demonstrate that in terms of levels of enjoyment and relaxation – those experiences which are attributed to a period of time-out in the literature – only the activities of using an MP3 player and caring for others have a significant association with these experiences. No other travel-time activities have any significant statistical association with these journey experiences. Passengers that have spent their journey caring for others were more likely to report a more enjoyable (or perhaps less dull) experience. Passengers that had used an MP3 player during their journey were more likely to have had a relaxed journey experience ($p = 0.04$). However, whilst using an MP3 player made a relaxing experience more likely, there is no association between this experience and an enjoyment of the journey, demonstrating that relaxation is not always aligned with experiences of enjoyment, and might be indicative of other inactive states such as boredom.

However, where the quantitative findings suggest that few travel-time activities have a significant association with experiences of the journey, participants’ qualitative discourses demonstrate that there are several different activities which passengers find enjoyable or relaxing. The reasons for this marked difference are discussed further below.

Most participants on Bus Tales and in the focus groups articulated positive experiences of several travel-time activities during their bus journeys. From a qualitative perspective, time-out activities on the bus do create experiences of relaxation and enjoyment. Listening to music, reading a book, reading the newspaper, daydreaming, people-watching, and thinking are activities which are enjoyable or relaxing to many participants.

Participants also found positive benefit to their experiences from the opportunity that travel-time provides for organising or completing personal tasks. For some passengers
the bus journey provides time to do things which they might otherwise not have the
time for. It is evident that the travel-time activity on the bus sometimes has a quality
of the ‘time-for’ activity suggested by Jain and Lyons (2008). Chapter V has explained
that most often these are “everyday activities” conducted using “everyday carried
objects”, but that the bus is providing a dedicated and unique slice of time-out from
the day’s schedule in which to engage in these. By bringing activities from their wider
daily routines into this place, passengers can familiarise their experiences of travel-
time.

Indeed, some participants see the bus as a perfect environment in which to enjoy
some personal time, often specifically because of the restrictions it places on the
obligations that life outside of the bus imposes. Flamm (2004) notes that travel-time in
general is sometimes a piece of time which allows passengers to escape from the
pressures of a daily routine. Reflecting on this insight, this thesis finds that in the
context of bus travel, it is sometimes specifically the restriction that the bus
environment places upon “more productive” activities that helps passengers to
“escape” such pressures – giving them an excuse to snatch a little slice of time to do
with as they please. As introduced in Chapter V, participants described how it is
sometimes the fact that they can’t be “doing anything” on the bus that makes this slice
of time unique – and in some cases valuable. The fact that passengers are restricted in
the activities that are possible on the bus creates the opportunity to relax whilst
avoiding the feelings of guilt that might be experienced if they took some similar
personal time in another context.

As a result, some participants suggested that they would like this period of time-out
from their daily routine to last a bit longer. Redmond and Mokhtarian (2001) and Jain
and Lyons (2008) have noted that when posed with the option of having commute
time or having zero travel-time (the ‘teleportation test’) interview participants often
suggested they would prefer a 10-15 minute journey over the option of having zero
travel-time. Bull (2000) found that some respondents who listened to Walkmans
sometimes valued having a little longer to listen to their music. This thesis finds that
several participants articulated similar desires. Thus, for some the bus journey is
legitimised free time sanctioned by the necessity of travel; a piece of time into which
the obligations of the daily routine that exist outside of this place cannot penetrate. This particular aspect of travel-time during a bus journey can be argued as particularly pertinent within the context of discourses of modern society, which claim that increasing time-pressures and the intensifying social imperative to ‘be active’ (Hedges, 2001) can have detrimental impacts on social and personal relations (Larsson & Sanne, 2005; Sullivan, 2007). It is not possible to comment from the data specifically on links between travel-time and subjective well-being in relation to increasing time-pressures; however it is clear that having a piece of time in the day which might be considered as time-out, or free-time (or even simply “dead time”) is something which is valued by a number of participants. This connects back to earlier discussion, and suggests that people might not want to be economically productive during their travel-time, and enjoy this fact. The bus, in its restrictions, can sometimes be a liberating space.

The disparity between the quantitative and qualitative findings is a result of the two forms of data that are produced. The qualitative findings were generated in extended discussion with participants, in which they articulated their experiences of the bus journey in considerable depth and were able to explain aspects of the experience that the quantitative survey was unable to record. The survey was designed around the findings of the qualitative data, and as such where the findings from the qualitative data demonstrated this positive effect of activity upon experience, it was intended that the survey would tap directly into this with respondents and assess what proportion of passengers reported similar experiences. Instead however, the two different forms of data have produced different perspectives. As introduced in Chapter V, this is suggested to be a result of the everyday nature of travel-time activity on the bus. The familiarity of the activities in which passengers engage on their journeys means that these experiences of the bus require reflection and discussion to formulate and articulate. Participants in the survey were not given an extended piece of time in a group discussion context in which to consider and generate detailed reflections on their travel-time experiences. Unlike those of the Bus Tales and focus group participants, their responses were given in situ as the experience was occurring, and in relation to the wider context of that journey and their general experience of the day. As such the specific relevance of travel-time activity to their answers became
subsumed by other more primary contextual factors and was thus not articulated to the same degree as in the qualitative data.

This wider positioning of the relevance of travel-time activity within the context of other aspects of bus services is developed further in discussion of the thesis conclusions in Section 6.4 (p. 272). These different perspectives that are created by the different types of data help to explain the different perspectives on travel-time experience in existing research discussed in Chapter III and at the start of this section. Jain and Lyons (2008) and Stradling et al. (2007) used qualitative data in their analyses to generate their findings that time-out activities on the bus can form positive journey experiences for the passenger. Ettema et al. (2012) used only quantitative data, and the results that were generated assert neither no significant effect of relaxation and entertainment activity, or a worsening of the journey experience as a result.

Therefore this thesis finds that when researching experiences of travel-time, the mixed-methods approach should be considered carefully in terms of the different forms of data that each phase generates, and attention must be paid to the interactions of the different datasets. This is particularly relevant when considering the breadth of context that the different data encompass. In this thesis the qualitative phases have gone into great depth within a relatively narrow context specifically focussed on travel-time activity itself; the survey phase has gone into less depth but within a much wider context of the journey and service aspects of bus travel.

To summarise, from a qualitative perspective, time-out and time-for activities on the bus can complement or facilitate a positive experience of time-out during the bus journey for passengers. However, the results of the regression analyses suggest that these positive experiences do not outweigh the strong negative experiences that are engendered by factors such as poor punctuality. This indicates a hierarchical structuring of different factors that influence journey experience and service perception, with some factors of more primary significance than others. This issue is developed further in the conclusion chapter, where it is used to position the findings generated in this thesis within the context of other factors that are influential in creating journey experiences and service perceptions.
6.2.3 Mitigating negative experiences – boredom, stress, and social discomfort

This thesis finds that the second way in which travel-time activity can have an effect upon the experience of the journey is through activities that lessen the negative experiences of being on the bus. Thus, they do not create a specifically positive experience of the journey as is the case with the time-out and time-for activities discussed above, but nonetheless can be seen to improve the experience of the journey through a mitigation of some of the negative affective influences encountered during bus travel. This mitigating function helps to explain why the findings from the survey do not demonstrate any consistent significant association between travel-time activity and journey experience.

Furthermore, this thesis holds that the positive experience gained from travel-time activity does not necessarily have to be transferred into a subsequent positive perception or experience of the bus journey. Particularly in the case of passengers that engage in activity to kill time or disconnect from the social space, they are engaging in travel-time activity because they perceive their journey experience – and thus to some degree the bus – as negative. There is no reason to suggest that that simply because an activity itself is enjoyable, this therefore has to mean that it improves their wider perception of the bus, particularly as it is the bus that has caused the negativity to begin with.

Thus, travel-time activities are often engaged in to simply lessen negative experiences, and participants' discourses demonstrate that it can have this effect. What the survey findings suggest is that this mitigating effect rarely reaches the point where the journey experience becomes sufficiently positive to be statistically significant. Therefore in many cases travel-time activity is at best only a partial cure for the acutely experienced symptoms of bus travel. For example, travel-time activity might lessen the experience of boredom, but a lower level of boredom will remain. This has been discussed by Ettema et al. (2012), who found that public transport passengers often engage in activities to entertain themselves on trips that are perceived as dull, and that such activities are thus associated with less positive activation and a lower cognitive evaluation. This thesis supports such a mechanism occurring in travel-time activity on
the bus. The activity will not make the journey fully enjoyable, but simply less unpleasant.

This thesis finds that travel-time activity on the bus has two key mitigating effects: killing time and enabling social disconnection. Killing time refers to the mitigation of the negative impacts of duration – experiences of waiting, boredom, and stress on the bus. Social disconnection refers to the mitigation of unwanted social interactions which can serve to create strong negative affects and unpleasant journey experiences. Therefore, the purpose of travel-time activity in these respects is to either lessen the negative effects of the journey or lessen the negative effects of other people upon the passenger.

**Killing time**

Returning to the earlier comparison between the bus and the train (see: Table 12), whilst there are approximately even levels of activity occurring on these modes at the aggregate level, nonetheless experiences of boredom on the bus are over four times the levels reported on the train (46% / 11%) (Lyons et al., 2011). This raises a question as to what is different about the bus journey experience that could be engendering a higher level of boredom despite similar levels of travel-time activity. This finding is developed further in Section 6.3.2 (p. 264) in relation to the age data presented in Chapter V, where it is considered whether the high proportion of younger users skew this result towards higher levels of boredom – being significantly more bored during their journeys than their older counterparts.

Nonetheless this explanation based on age difference does not address two issues. First is why it is younger passengers in particular that experience such high levels of boredom during their journeys – especially considering their proportionately high contribution to the level and range of travel-time activities on the bus (this issue is returned to in Section 6.3.1, p. 263). Furthermore, this explanation does not take into account fundamental differences in the travel-time activity potential – and subsequent
journey experiences – which are influenced by the differing spaces and temporalities encountered along the course of journeys by bus and train.

In relation to earlier discussion concerning passengers’ limited ability to unpack on the bus, Watts and Lyons (2011) note that in contrast to unpacked passengers (who are well equipped for productivity), packed passengers are primarily equipped for waiting. Watts and Lyons (2011) discuss waiting in the context of waiting rooms, platforms, and bus stops – as waiting to travel: ‘packed passengers are equipped for waiting at the station or stop, with items such as mobile phones and newspapers to hand’ (p. 111). This thesis develops their discussion of waiting to consider the experience of waiting during travel. Participants’ qualitative discourses explain that particularly for passengers that view their bus journey as a means-to-an-end, their experience of travel-time is thus little more than a period of waiting for their destination to arrive. Reflecting on the discussion of the dominant experience of hypermobility, this thesis suggests that developing an understanding of travel-time as a period of waiting in-and-of itself can help to explain negative perceptions of time on the bus, such as it being wasted or boring:

‘Waiting ruptures the dominant focus on speed and velocity and challenges the modernity based on the time-economy’ (Jain, 2009, p. 97).

For some passengers, the experience of bus travel – in which a passenger has little control or agency over the physical progression of the journey – conflicts with the ingrained cultural ideals of speed and freedom epitomised by car travel (see: Dant & Martin, 2001; Baudrillard, 1996; Guiver, 2007). Often in such cases the experience of travel-time activity on the bus was articulated by participants as merely a method of killing time whilst they wait for their destination. Gasparini (1995) has considered how the negative attributions of waiting can be attenuated in one of two ways: waiting can be overcome with technology (i.e. through structuring and facilitating flows and interactions efficiently enough that there is no need to wait), or it can be overcome by ‘equipping’ time with activities to lessen the effects. On the bus passengers equip their travel-time with activities which can ease the passing of the period of waiting the journey engenders. Furthermore, with additional relevance to this, some passengers
are equipping their time with mobile technologies and ICTs, and thus there is a blurring of Gasparini’s (1995) distinction, with waiting being overcome technologically through the use of devices such as mobile phones and music players.

The short journey times experienced on the bus and the inability to settle into a prolonged period of activity can result in travel-time on the bus becoming a series of short-term beguilements, with passengers “flitting” between several brief activities using the items they have to hand during a journey. This finding is supported by the results of the survey which show that over a third of passengers are engaging in between 5-10 distinct activities per journey, necessarily only spending a small amount of their travel-time on each before moving on to what is – potentially – the next distraction.

Reflecting on insight from Watts (2008) and Watts and Lyons (2011) – who have considered how activity on-the-move affects the subjective experience of duration – it is evident that travel-time activities conducted during the bus journey have an important function for some passengers in their ability to compress the experienced duration of travel-time. Sometimes the subjective experience of the journey can stretch out, leaving the passenger vulnerable to negative experiences – particularly of boredom, which is discussed in specific detail below. The data presented in Chapter V has illustrated how bus passengers are using travel-time activity to compress the experienced duration of the journey. Furthermore, previous discussion has explained how there is often a blurring of the boundary between different reasons for time use, with any positive or productive output of the activity being simply a “happy by-product” of attempts to pass the time.

Participants’ discourses challenge a suggestion by Watts and Lyons (2011) that the ability to compress or stretch time is predicated upon the ability to unpack: ‘unpacked passengers are configured to make time pass more quickly’ (p. 112). This thesis finds that packed passengers inhabiting the restricted spaces of the bus are nonetheless highly capable of controlling the subjective duration of their journeys using the few items that they have to hand. Jain (2009) has discussed the practice of waiting for the bus:
‘Objects, either packed or ornamenting the traveller, equip and extend the possibilities of waiting so that waiting is not performed as a passive state’ (p. 97).

This thesis finds this insight to be true not only of waiting at bus stops and station platforms, but also of the period of waiting during the journey itself.

Dubé-Rioux et al. (1989) explain that a period of waiting might be experienced positively or negatively, dependent on the context of the wait and the individual who is waiting. For some passengers, the experience of time stretching out as they wait for the destination can often cause affective discomfort, which regularly manifests as boredom. Schweizer (2005) has discussed the experience of waiting, and similarly describes how such a period is often connoted with the experience of boredom and apathy. Boredom is a common malaise of the bus passenger – particularly the young bus passenger. The survey has found that 46.5% of passengers had reported their experience of their journey as boring (n = 753). Conrad’s (1997) discourse on the contextual and subjective nature of boredom is useful when explaining such experiences during travel-time, and in particular how it is possible for substantially different levels of boredom to be observed in travel spaces where similar levels of activity are occurring – such as on the bus and the train. Boredom is not intrinsic to the object (i.e. travel-time activity), but rather in the experiences and attributions of passengers, and the context within which it is conducted (Ibid). It is therefore suggested that the travel-time activities of the packed passengers on the bus can often be explained as activities which are undertaken to lessen the perceived negative experiences of waiting – they are akin to the ‘denials of waiting’ described by Schweizer (2005):

‘The magazines in waiting rooms [or Metros on buses], the entertainment on television [or now widely available on smartphones], the snacks, the cigarettes’ (p. 779).

In developing the issue of boredom further in relation to the experience of travel by other modes, Gatersleben and Uzzell (2007) have noted that public transport users in
general are more likely to experience boredom than car drivers\(^{39}\) because public transport journeys are less ‘arousing’ than the experience of driving a car. However their research does not disaggregate public transport by mode and therefore does not account for or explain variance within this umbrella category. Reflecting on this, earlier discussion has explained that the bus environment is seen to be more intrusive than that of the train. Participants described a lack of a sense of personal space on the bus related to the close proximity of other passengers. Where Bissell (2010) has explained that travel is rarely experienced alone, the train environment (whilst a shared space) was nonetheless articulated by participants as being less socially intense than the bus. The bus has more distractions: being constantly “on show” to other passengers, frequents stops. It has been discussed how the direct travel experience of the car provides some drivers with a feeling of control, speed, and freedom that it is difficult for other modes to match (see: Dant & Martin, 2001; Baudrillard, 1996; Guiver, 2007). In response, Watts and Lyons (2008) have explained how the train environment allows passengers to unpack and engage in activities which can sometimes substitute for the direct travel experience of the car. However the bus passenger is often caught in between these states of activation and deactivation. The environment is too distracting and constrained for some passengers to engage in the activities which on the train can replace the direct experience of car travel, and yet the experience is not sufficiently engaging to be pleasurable. This adds to the sense of the bus journey as nothing more than a period of simply waiting for the destination to arrive. Passengers that find themselves unable to relax on the bus find themselves trapped and deprived of sufficient stimuli to avoid boredom. Harvey et al. (2011) have noted a similar issue in relation to driving in sensorily deprived environments (for example on a motorway at night), where boredom and understimulation can create a particularly non-aroused and boring experience – to the point of it being a safety issue. Thus, some passengers have strategies for dealing with the inevitability of the wait, and the boredom that follows.

As the previous discussion of time-out and time-for demonstrates, this is evidently not true for all travellers on the bus; however this thesis holds that particularly for younger

\(^{39}\)Although, conversely, they are less likely to experience the same degree of stress as car drivers.
passengers, the survey results which show regular experiences of boredom despite high levels of activity related to this reason for travel-time activity.

The qualitative data demonstrates that passengers that are bored are often using travel-time activity to compress their journey duration (see: Watts, 2008; Watts & Lyons, 2011), with the specific aim to thus slow or reduce the encroachment of boredom (Line et al., 2011). This thesis holds that extending the discussion of waiting – beyond simply the bus stop – to encompass the bus journey is useful therefore in exploring and understanding some of the negative experiences of passengers who must spend time in this place, through a linking of wider discourses of waiting to the specific experience of travel-time on the bus.

The survey results find that in a number of cases, participants had experienced a boring but relaxing journey (7.5%) – demonstrating the complexity in some cases of unpicking distinctly pleasant or unpleasant journey experiences. It is interesting to note that the majority of people that had experienced their journeys as boring but relaxing were young passengers aged 16 - 24 (66.7%). Anderson (2004) and Jain (2011) have considered how travel-time often marks the boundary between boredom – in particular the transient experience of less active ‘anti-activities’:

‘Gazing through the window marks a boundary between boredom and relaxation as the activity enables the mind to wander and transcend the bodily inertness of being a passenger’ (Jain, 2011, p. 1021).

Several pieces of existing research explore the distinction between boredom and relaxation. Harvey et al. (2011) define them as mutually exclusive: they are affective states which represent the poles of the “displeasure – pleasure” continuum at times of low arousal. However, whilst they suggest a strong distinction in the experience of boredom and relaxation, they note that there may be a ‘thin line’ between the two states for some individuals which is easily crossed – meaning they might switch easily from relaxation into boredom (Ibid, p. 52). Jain and Lyons (2008) consider that the experiential distinction between relaxation and boredom is somewhat more blurred, and suggest a period of boredom as an opportunity for travel-time activity: a boring
journey might ‘facilitate time for thinking or relaxing’ (p. 84). Ettema et al. (2012) present this in the opposite way; they suggest that activities related to relaxation might be symptomatic of boredom – as opposed to part of an enjoyable or pleasant experience – and that ‘engaging in such activities are indicators of boredom or stress that these activities reduce’ (p. 7).

Chapter III has explained how in existing research into boredom, most often such an experience is given a negative attribution. The positive activity potentials of a period of boredom that Jain and Lyons (2008) suggest are less prominent, and discourses discuss it primarily as an affliction. Conrad (1997) describes the connotations of boredom as disconnection, tedium, repetition, and disinterest; Mikulas and Vodanovich (1993) discuss boredom as low arousal and dissatisfaction; Anderson (2004) describes the banality of boredom; and Fisher (1993) identifies the unpleasant attributes of boredom, including difficulty concentrating and a lack of interest. The qualitative data similarly shows boredom to have universally negative connotations, distinct from a positive experience in participants’ discourses. As was discussed earlier in this chapter however, Conrad (1997) has noted that boredom is not intrinsic to the object, but rather is a subjective state formed in the attributions of different individuals in different contexts. Therefore on the bus, this thesis finds that for those individuals that have a relaxing but boring journey, the aspects of the bus journey which can often lead for some passengers to a positive state of relaxation – the limitation of activity and the disconnection – bleed into the attributions of boredom that the literatures describe. Thus where some passengers relish the experience of relaxation and time-out on the bus, others come to experience this period of slowness, tranquillity, or transition as monotonous, tedious, and dull. There is a link here to Ehn and Löfgren’s (2010) discussion of people’s experiences of daily routine, where some find these instances monotonous and restrictive, where others see them as calming and somewhat liberating. Furthermore, reflecting on Harvey et al. (2011), for some passengers an experience of relaxation at the outset of a journey might easily ‘switch’ to an experience of boredom during their trip. Travel-time activities which are relaxing for some – and thus perceived to be of generally positive benefit in much of the travel-time literature – are not always experienced positively by passengers on the bus.
Indeed, the qualitative data suggests that many passengers made a strong distinction between their experiences of boredom and their experiences of relaxation. Relaxation is referred to positively by the majority of participants, where experiences of boredom have a negative affective outcome which often requires some form of activity to alleviate. Bissell (2007) describes the maintenance of affective comfort as a balancing act; it is an active process in which a person must continually shift their mental position relative to external stimuli in order to find a comfortable state. This thesis finds that particularly in relation to passengers killing time (as opposed to enjoying time-out) what may start as relaxation can sometimes slip into boredom, and therefore passengers will sometimes use the travel-time activities available to them to bring about this (largely mental) change in position in an attempt alleviate negative affective experiences of boredom on their bus journey.

**Disconnecting**

The second way in which travel-time activity mitigates negative experiences is through lessening the affective impact of social discomfort and the sensory environment in the intensely public spaces of the bus. Travel-time activity and the everyday items people carry have been used in this way throughout the recent history of public transport (Schivelbusch, 1980). On the bus, passengers engage in different activities (primarily listening to music, reading, and using mobile phones) as a means of “removing themselves” or shutting themselves off from the social environment, and the unwanted intrusions into personal space that this can engender.

Through their use of carried objects and mobile technologies, passengers on the bus attempt to create a tacit but palpable shield or zone around themselves that delineates their personal space within the public space of the bus. Controlling the sensory environment not only means that the passenger is able to mediate the effects of time, but also the effects of being proximate to others – which engenders a constant possibility of an unwanted intrusion into personal space. Bull has noted that personal music players make possible the creation of a ‘privatised auditory bubble’ (2005, p.
The use of personal music players is now a commonplace sight in many public places (Bull, 2005; Bull, 2004b; Hemsworth, 2010), and the bus is no exception.

On the bus, the use of iPods and other personal music devices is the most effective method through which a robust delineation of personal space is achieved; primarily because these devices both give a legitimate reason for ignoring attempts at conversation by other passengers, and serve to drown out other unwanted sensory intrusions. When attempting to create a sense of personal space, whilst it might be relatively simple for passengers to avoid unwanted eye-contact (Evans & Wener, 2007; Sommer, 1969), it is a more serious challenge for them to avoid pervasive aural intrusions (Schafer, 2003) – it is not possible to simply “avert one’s ears”. Thus, plugging in headphones and engaging with an alternate soundtrack to that of the “outside world” is both a practical and symbolic method of removing a person’s engagement with the auditory aspects of the social environment.

Skånland (2011) considers the use of MP3 players as an emergent ‘coping resource’ in modern society. Linking the sonic environment to people’s quality of life, Skånland (2011) suggests that noise can be a stressor in urban environments, and this thesis holds this to be true of the bus environment. In Chapter V, participants discussed the negative effects of being subjected to other passengers chatting, making phone-calls, and listening to music, all of which served to intrude on their perceptions of personal space. Several participants articulated their particular displeasure when they perceived other passengers’ actions as antisocial, and not respectful of the shared space. Participants often viewed behaviour that interfered with other passengers’ tranquillity during the journey as rude, and their discourses explain that there is a strong sense of the bus being a public place in which it is important to consider other passengers’ experiences. In the case of some of the activities which people may engage in to disconnect themselves from the social environment of the bus – particularly listening to music or talking on the phone – often this disconnection can negatively impact on other passengers’ experiences through creating additional noise which spills over into the personal spaces of others, as also noted by Flamm (2005) and Du Gay et al. (1997).
Despite many passengers’ attempts to disengage and avoid socialising, nonetheless in the right conditions the social aspects of bus travel provide perhaps the most positive experiences for passengers, particularly in terms of chatting to friends, family, and other acquaintances. The following section discusses the social aspect of travel-time, and explains how affectively comfortable experiences of the journey are aided by socialising on the bus.

6.2.4 Sociability and sociality

Socialising during travel-time can result in positive experiences of the journey, particularly when socialising is with people that a passenger knows (Beirão & Cabral, 2007). Alternately however, unwanted social intrusions can serve to cause an uncomfortable encounter and negatively affect perceptions of the journey (Stradling et al., 2007; Mann & Abraham, 2007). As discussed in Chapter V, the activity of socialising on the bus and the potential for social contact that the bus represents is variously seen as a positive or a negative influence upon the experience in participants’ qualitative discourses. The quantitative data has demonstrated that passengers’ comfort with the possibility of talking to strangers on the bus has a significant positive association with their journey experiences and perceptions. People that are happier to talk to strangers are more likely to have a better perception of the bus, and furthermore are likely to find their journeys more enjoyable, more relaxing, more comfortable, and less wasted. This indicates that the social aspect of the bus is highly important in forming perceptions and experiences in two ways; first is through the actual activity of talking to others (when this occurs), and second is through a person’s subjective comfort with the constant potential for social interaction that the bus creates. These findings are developed through discussion in this section.

Chapter V has gone into specific detail on the enjoyment that participants discussed getting from speaking to people that they know on the bus. Ettema et al. (2012) have similarly noted that in their study, socialising was the activity found to have the most consistent positive association with the experience of the journey. Participants
enjoyed the social experience of travelling with friends (see: Symes, 2008), and when travelling in company, socialising often takes precedence over other travel-time activities. Passengers who might normally listen to music or read when alone report that they do not engage as regularly in these activities when travelling with someone else that they know. Partly because conducting other travel-time activities which might serve to disconnect the individual from strangers on the bus is seen as antisocial in this context.

Furthermore, it has been explained that socialising on the bus allows negative experiences of the journey to be shared around with others, thus lessening the impact of negative affects that might normally be experienced in isolation. Conrad (1997) has discussed how ‘voicing’ a bad experience to others is a means of collectively challenging its negativity. Talking to others about a negative experience of the journey shifts some of the burden of the negativity to the listener – following the old adage that “a problem shared is a problem halved”. However, it is unlikely that talking to others about the negative aspects of bus travel subsequently creates a positive experience of the journey; it simply makes the situation slightly easier to bear.

In developing understanding of the social experience of bus travel, it is evident that for some people, their ideas and experiences of what it means to “be sociable” during travel-time are being re-shaped and expanded by the presence of the mobile technologies that increasingly augment bus passengers on their journeys. Many participants socialise during their travel-time with people that are not present in the bus, but who can be virtually present through the use of ICTs. This is directly related to discussion in the literature review where it was considered that the virtual mobility facilitated by ICTs gives particular relevance to travel-time activity on the bus (see: Sheller & Urry, 2006; Urry, 2008). This finding demonstrates how virtual connectivity is becoming increasingly important to people’s experiences of being on-the-move. Travel-time on the bus allows the passenger to engage ad-hoc in the hypermobile communicative practices that are being layered on top of the existing networks of mobility.
Chapter III has discussed mobile phone use on the bus, and this thesis finds that a high percentage of (particularly younger) passengers are texting and making phone-calls during their journeys. This is discussed in greater detail in the final section of this chapter. It is evident that advances in mobile technologies – in particular the advent of smartphones – have meant that the ability of passengers to communicate with others during travel-time is steadily increasing. Lyons and Urry (2005) have discussed the potential of such mobile devices in this respect, and more recently Line et al. (2011) and Ettema et al. (2012) have reported that these technologies are being used for a broadening range of activities. Chapter V has discussed a similar finding in this thesis, and the survey results demonstrate that in the context of the bus, these devices facilitate not only texting and phone-calls, but also internet access during their journeys. This has lead to the opportunity for passengers to email and access SNSs during their journeys. This thesis finds that virtual co-presence with others outside of the bus was discussed by participants on Bus Tales as being of generally positive benefit. Predominantly as a means of killing time or for making social contact that they might not otherwise have time for. This further demonstrates the subjectivity of travel-time, with the same activities and objects being used by passengers for different reasons.

Returning to the co-present socialities created between different passengers within the bus itself, earlier discussion has highlighted the finding the different affective atmospheres (see: McCormack, 2008) that can be created on different services, with passengers travelling on U-Link buses feeling more comfortable talking to strangers as they most often shared something in common in travelling to the university. However when discussing travel on non-university buses, some of the same participants’ discourses turn to more distanced representations of a stranger, and participants talk of their fears of being trapped in an undesired social exchange or having their affective comfort shattered by the intrusion of others into their personal space (see further discussion: Section 6.2.3).

Thus the positive and negative attributions of socialising on the bus are dependent not only on the person – as discussed in Chapter V – bus also the context and the sociality of the journey. Bissell (2010) has explained this in relation to train journeys, where the
sociality of the Monday morning commute creates a very different affective atmosphere to that of the Friday evening train taking people home for the weekend. Ettema et al. (2012) have found a similar effect in their research. Their results show that talking to others (amongst other activities) on public transport journeys has different effects upon the experience at different times of the day. In the morning talking to others encourages feelings of positive engagement with the public transport environment but has no effect on how passengers cognitively evaluate their journey; in the evening talking to others encourages feelings of relaxation and does have a positive effect on how passengers cognitively evaluate their journey. The findings from Ettema et al. (2012) support the finding in this thesis that the experience of travel-time that is created by activity on the bus is heavily subjective and context dependent.

Whilst it is evident from the qualitative data that chatting to people that they know has a positive benefit for passengers, nonetheless the survey results do not find a statistically significant association between the activity of talking to others and people’s perceptions and experiences of their journeys. At the same time however there is a strongly significant association between passengers’ comfort with the potential for social interaction and their perceptions and experiences of travel-time. The datasets are not able to provide a complete answer to this inconsistency; however, this thesis suggests the following explanation. The finding can be related back to the everyday nature of socialising. It has been discussed earlier how on the bus often travel-time activities are engaged in to mitigate negative affects experienced during the journey, such as boredom. It is suggested that socialising on the bus might have a similar effect in that it alleviates some of the negative aspects of the bus journey, but yet the familiarity of this activity does not lead to it making the bus journey distinctly positive, simply less negative. This helps to explain why these differences have been observed between the qualitative and quantitative findings.

As discussed, for bus passengers, the potential for social interactions with strangers during their journey is a constant (often unavoidable) possibility. When participants are in the situation of talking to – or being talked to – by those they are unacquainted with, the activity of socialising can create either an enjoyable and pleasantly activated affect or an uncomfortable and unpleasantly activated affect, dependent on the
person’s subjective feelings of social comfort within the bus. Earlier discussion on disconnection has explained the passengers’ responses to unwanted intrusions by strangers, through their efforts to disconnect from the social environment of the bus. For some passengers however, the opportunity the bus provides for interacting with strangers and it is evident that such interactions for these passengers engender a more positive sociality between passengers for those that wish to engage in conversation with other passengers.

Bissell’s (2009) explanation of socialities as ‘different forms of being-with-others’ (p. 66) is pertinent to these findings because the different desires for socialising on the bus between passengers on a particular journey create different collective atmospheres within the bus – which individual passengers might thus experience positively or negatively. On a journey on which many passengers are socialising and with a more congenial sociality, those people that enjoy the experience of talking to strangers will experience a more positive journey as a result. Whereas on a journey in which passengers are less engaged with those around them and the sociality is more subdued, those who enjoy the solitude of bus travel and their intact sense of personal space may find the journey more relaxing.

6.2.5 Summary

The findings discussed in this section relate most strongly to research questions 2(a) and 2(b). Passengers on the bus largely engage in travel-time activities which complement or improve the experience of the journey, which supports Stradling et al.’s (2007) finding that bus passengers desire an affectively comfortable journey. This thesis finds that this occurs in one of three ways: through personal time (time-out/time-for), mitigating negative affective experiences, and socialising.

Travel-time activity on the bus is an important part of experiences of time-out. Time on the bus can provide time for relaxation and enjoyment within an otherwise busy activity routine, and passengers’ qualitative discourses demonstrate that many people value this experience of the bus. Time on the bus can also provide time for activities
that people might not otherwise have time for, and as such is also valued by some passengers for this affordance. Specific carried items and ICTs such as books, newspapers, personal music players, and mobile phones are used frequently by passengers during time-out. Seemingly inconsistent accounts of travel-time found in the data and also in related literatures are suggested to be a result of the different forms of data used in their generation. Qualitative data produces richer accounts of travel-time experience, within which the positive benefits of travel-time activity are better formulated and articulated. Quantitative data broadens the context within which the effects of travel-time activity are situated, and thus often denies any significant association between activity, perception, and experience – submerging it beneath the more primary factors involved in the formation of service perceptions and journey experiences, which are discussed in Section 6.4 (p. 272).

In mitigating negative affective experiences that may erupt on a journey, travel-time activity is either engaged in by passengers as a means of killing time or disconnecting from the social environment of the bus. A high proportion of passengers experience their bus journeys as boring, in turn leading to unpleasantly low arousal and resultant stress. Passengers flit between travel-time activities in an attempt to alleviate such boring and uncomfortable experiences by distracting themselves from these affects. Mobile technologies and ICTs are used for this purpose – in particularly high proportions by younger passengers, which is discussed further in the following section of this chapter. The intensely public space of the bus also leaves passengers vulnerable to unwanted intrusions into their personal space from other passengers, and unpleasant levels of noise. Personal music players are a particularly powerful tool of disconnection, and these are used regularly by passengers to disengage themselves from the aural environment of the bus, and tacitly legitimise withdrawal from social contact. Other mobile technologies and carried objects such as books, newspapers, and mobile phones are used as a means of disconnecting within the bus, and asserting personal space when physical space is restricted. However, such attempts at disconnection can sometimes have negative consequences for the experiences of other passengers on the bus, which might be subjected to additional noise from
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personal music players and phone conversations, or negatively influenced by the more solitary and divided sociality that disconnected passengers can engender in the space.

Socialising on the bus has a unanimously positive influence upon the experience of a journey when it is something that is desired by passengers. Those passengers that are more comfortable engaging in conversation with strangers have more positive perceptions and experiences of the bus, and participants’ discourses demonstrate that talking to people that they know is a positive affordance during a journey. Passengers enjoy being co-present with those they know on the bus, and this further allows negative experiences of the bus to be shared and somewhat attenuated. Travelling with others on the bus often means that travel-time activities that might otherwise have been conducted are forgone in favour of talking. Mobile ICTs facilitate virtual communication, and many passengers spent their travel-time communicating with people that are not present on the bus. Advancements in ICT technology mean that there are an increasing range of options available to passengers in this respect, and this thesis has found that on the bus a proportion of passengers are now engaging in newer forms of virtual communication – in particular the use of SNSs on-the-move. When it is desired, talking to strangers on the bus can also have positive influences, and can make journeys more social, relaxing, and rewarding. When it is not desired however, it engenders the negative experiences explained in the discussion of disconnection.

Continuing from the findings presented in Chapter V, this discussion has developed the finding that all of the travel-time activities in which passengers engage during their bus journeys – and all of the carried objects and ICTs that they use – have varying influences and functions dependent upon the person that is using them and the context that is used. Subjectivity is the key issue in travel-time activity and its relationship with service perceptions and journey experiences. The penultimate section of this chapter considers the differences in experience and perception between different individuals and groups of passengers on the bus, taking this discussion to the boundary of what the data can reveal about travel-time, and posing questions for further research.
6.3 Variation in perception and experience between individuals and groups

6.3.1 Variations between passengers’ perceptions and experiences

Throughout this chapter, and in Chapter V, reference has been made to the differences in perceptions and experiences evident between individual passengers and groups of passengers on the bus. This section draws together these references into a discussion of the key differences observed in the data. Broadly, the greatest variation between the experiences and perceptions of passengers on the bus is at the level of the individual. This thesis finds that the subjectivity of the passenger is central to explaining variation in service perceptions and journey experiences in relation to travel-time activity; passengers engage in different travel-time activities due to their individual perceptions of what their travel-time on the bus can be. The differing experiential and activity desires of passengers have been explained in Section 6.2 of this chapter. Despite this variation in travel-time activity, there is a broad consensus in the data that a positive journey experience is one which is affectively comfortable, and travel-time activities are engaged in that either complement a comfortable affective experience, or mitigate some of the negative affect that many passengers experience on the bus.

Within this individual subjectivity however, there is a strong distinction between passengers of different ages on the bus. As has been discussed in Chapter V, this thesis has found that older passengers have a significantly better perception of the bus than their younger counterparts. Furthermore, older passengers have significantly more enjoyable experiences, more relaxing experiences, and find their time on the bus to be more useful. Lyons et al. (2007) have noted a similar result on the train, and demonstrated that older passengers had felt that they had made more ‘worthwhile’ use of their time than younger passengers. However, younger people are engaging in a considerably wider range of travel-time activities on the bus, and are the predominant users of mobile technologies and ICTs in this space. There is a strong technology divide between different age groups, and this is reflected in the findings that show levels of acceptability of different activities amongst passengers of different ages. Gilhooly et al.
(2002) have reported a significant difference in levels of satisfaction with public transport between older and younger passengers. They suggest that this is potentially explained by several different factors, including the provision of concessionary fares for older passengers, more flexible time schedules as a result of retirement, favourable comparisons engendered by greater past experience of public transport, and a lack of choice for older people.

The findings of this thesis develop these insights in the specific context of the bus journey to present a further potential explanation: that there is a difference in the sense of engagement within the public space of the bus. Younger passengers are significantly more comfortable with the use of mobile phones and personal music players by themselves and others, items which have been explained above as often used to disconnect passengers from the immediate social environment. Older passengers however are significantly more comfortable with the possibility of talking to strangers on the bus, and this is suggested to be an indication of a higher level of engagement with the social spaces of the bus amongst this age group.

This thesis holds that these differences between passengers of varying ages are an important aspect of understanding variations in service perception and journey experience at the individual level, and this closing section presents a discussion of the findings in relation to existing research, to unpick why these differences are observed.

### 6.3.2 Age

This thesis finds that younger passengers are engaging in a wider range of travel-time activities than their older counterparts, and in particular are putting to use emergent mobile technologies and ICTs on the bus in high numbers. The highest proportions of passengers aged 55 and above spend their travel-time reading, talking, window-gazing, daydreaming, and thinking. Those aged 16-24 however spend this time reading, talking, daydreaming, window-gazing, thinking, listening to music, texting, making phone-calls, eating and drinking, browsing the internet, and using SNSs. The use of ICTs during travel-time has been widely suggested as a means for public transport
passengers to improve the utility of their journey, and to enable people to put this time to more productive use (Lyons & Urry, 2005; Lyons et al., 2007, 2011; Holley et al. 2008). Furthermore it has been suggested that through travel-time being put to more productive use, there are subsequent positive benefits to the utility of the journey, and thus passengers’ experience of travel-time (Mokhtarian, 2001; Lyons et al., 2007; Watts & Lyons, 2011).

However, the findings of this thesis do not lend support to this rationale in the specific context of travel-time on the bus. The results from the survey deny consistent significant associations between the use of ICTs (and indeed most carried objects and travel-time activities) and a more positive experience of the journey, and indeed the findings discussed throughout this chapter and Chapter V demonstrate that the younger passengers who account for the greatest use of ICTs and a broader range of travel-time activities on the bus are in fact likely to report more negative experiences of the journey than their older counterparts that are engaging in simpler, “less active” activities during their journey. Ettema et al. (2012) have similarly reported that they are unable to lend support to the rationale that travel-time increases utility and leads to a more pleasant experience. Furthermore, Ettema et al. (2012) have observed a similar age disparity in their results for public transport commuters returning from work, with the younger age group reporting lower positive activation, lower positive deactivation, and lower cognitive evaluations of their journeys than their older fellow passengers.

**Engagement and disengagement**

The findings of this thesis suggest that the differences between younger and older passengers’ experiences should be considered in relation to their perceptions of engagement and disengagement (or perhaps belonging) within the social spaces of the bus. Wilson (2011) explains that the bus has been largely overlooked as a ‘site of public engagement in and of itself’ (p. 634). Yet the findings of this thesis suggest that engagement (or lack of it) within the public spaces that the bus represents is an
intrinsic aspect of the journey experiences of passengers. This data collected for this thesis is not sufficient to provide a conclusive discussion on these issues; specific empirical data is required to generate further knowledge in this respect. As such these emergent areas are discussed in this final section of this chapter as avenues for further investigation in Chapter VII. Below, a discussion of issues of engagement and disengagement between different age groups on the bus is initiated, drawing on the data available and making links to existing research, and leading to further questions which are beyond the remit of this thesis.

The technology divide between old and young on the bus is reflective of people’s activity practices in their wider lives. This thesis has found that 72.2% of younger passengers aged 16-24 had used their mobile phone on their journey, and 46.7% had used a portable music player; among those aged 55+, only 8.9% and 4.4% respectively had done the same. A growing body of international research has examined the use of emergent mobile technologies and finds that younger people are the significant leaders in their adoption and use. Axelsson (2010) reports significant differences between the use of mobile phones for young adults and older people aged 60-65 in Sweden. Ito and Okabe (2005) have found that teens in Japan display unique patterns of mobile technology usage, with young people using mobile technologies in higher volumes and different ways to other groups. Lenhart et al. (2005) have found similar patterns occurring in the USA. Green (2006) notes that younger people in the UK use mobile technologies in many of the same ways as adults, however also engage with these technologies to a much greater – ‘hyper-coordinated’ – degree in expressive ways (involving ‘social and emotional communication’) that are ‘more important for teens than for other groups’ (p. 203). Ito has explained the ubiquity of ICT use amongst young people in Japan, noting how these technologies allow a continual virtual presence within their social group:

‘Young people are in social contact even when alone, coordinating a meeting with a friend, sharing information about a shopping conquest, a celebrity sighting, a photo of their entrée, or just killing time in a texting chat as they ride the train home’ (2003, p. 3).
Younger people are using expressive communication through mobile technologies as a part of identity formation and engagement with their social groups (Green, 2006; Ito & Okabe, 2005), and in forming a sense of relatedness through their consumption of mobile technologies (Green, 2006). Furthermore many young people’s keen adoption of portable music players has allowed them to have increasing control over their mobile experiences through altering their auditory environment (Bull, 2005), and employing this as a coping resource in perceived stressful situations (Skånland, 2011) – attenuating unwanted and intrusive noise within the social environment of the bus.

‘Music thus makes the situation easier to bear (...) Hence, these individuals consciously choose to use their MP3 players to withdraw from their environments, and perceive it as pleasurable to do so’ (Ibid, p. 27).

Wilson (2011) suggests that experiences of social belonging and engagement can be formed through the experiences of physical mobility. This might be seen as particularly true in the case of the spaces of public transport, in which physical mobility is inextricably fused with the experience of being with others. This thesis finds that older people are more engaged with the social spaces of the bus than younger passengers. This is shown by the fact that older passengers are significantly more comfortable talking to strangers on the bus, and are speaking to a wider range of people on the bus (friends, family, strangers, acquaintances), where younger passengers talk predominantly to their friends. In conjunction with the finding that both age and a willingness to engage in the public space of the bus are the strongest and consistently significant variables, it is evident that such a sense of engagement is an important factor in a forming more positive journey experiences.

Andrews et al. (2011) have discussed how for older passengers, the bus journey represents an important site of social engagement. The public spaces of the bus are used as a place in which to meet other people and socialise with friends and acquaintances. Aldred (2010) explains how the different forms of transport that are fundamental to people’s lives contribute to their sense of identity. Her argument is developed through a discussion of the ‘cycling citizen’ – which is ‘based on the links people make between cycling and the worlds outside the bicycle’ (Ibid, p. 35).
Reflecting on this, the findings in this thesis suggest that older passengers have a greater sense of a “citizenship of the bus” than younger passengers. Their engagement in the social space of the bus is representative of their wider social identity, and older passengers’ distinct enjoyment of the social aspects of the bus journey suggests that this is an important part of their engagement in public life.

Earlier discussion of different socialities in reference to Bissell (2010) has explained that younger passengers travelling on the university’s U-Link service experienced a distinctly stronger sense of engagement within the space than they did on other public bus services in the city. Wilson (2011) suggests that buses can be sites of identity-making. Participants explained how they felt something in common with other passengers on the bus when travelling by U-Link. Other people on this service, even if unacquainted, were perceived as familiar due to their identification as a university student. Earlier discussion in Chapter V has explained how specifically on these services, the younger passengers engaged with others on the bus, and the experience is a distinctly social one; on other buses however, there was a lack of common identity with other passengers, and participants appeared less willing to engage in the social environment on these services.

Therefore this thesis holds that for some young people on buses in which they find little common identity with their fellow passengers, a perceived lack of engagement with the immediate social space of the vehicle leads them to disconnect from this space through their use of technology. Through the use of portable music players, passengers passively disengage themselves from the space, re-shaping and controlling their experiences using music and sound (Bull, 2004b, 2005). Or – through the use of ICTs – they actively re-engage in their virtual networks within which they feel greater engagement and identity (Green, 2006). Furthermore, the very act of disengagement thus serves to further reinforce disconnection from a sense of belonging and identity in the public spaces of the bus, and a fostered experience of difference from unacquainted passengers is perpetuated through the travel-time activities of many younger passengers.
The use of mobile technologies by a proportion of younger passengers is a highly normalised part of their wider socio-technical routines, and thus for some younger passengers on the bus this thesis suggests that the ubiquity of such technologies and their availability for use anywhere, anytime means that there is little that is unique about the affordance of travel-time as a period of time-out in which to conduct these activities. Thus the use of these technologies on the bus is no different for many younger passengers than their use in any other sphere of life, and their use during travel-time therefore does not have the effect of creating a positive journey experience, helping to explain the finding that younger people have worse perceptions and journey experiences despite their engagement in more travel-time activity. Indeed, younger passengers’ disengagement from the social environment of the bus is often facilitated by a re-engagement with their virtual social networks through the use of these technologies. The bus is simply an uncomfortable and intrusive corporeal setting from which to reach out into their virtual social networks.

Young and bored

In considering the experiences of younger people feel who disengage themselves from the public space of the bus, earlier discussion has highlighted that younger people on the bus find the experience to be significantly less enjoyable and more boring than older passengers. Conrad (1997) suggests that boredom is an experience articulated particularly keenly by the young. Boredom is an experience linked with understimulation and feelings of disconnection, which subsequently lead to such a period becoming monotonous, tedious, and dull (Ibid). Widerberg (2006) has suggested that socially derived expectations of activity in modern society are also felt particularly strongly amongst the younger generation. Thus on the bus, the restrictions imposed by travel-time can lead to a proportion of younger passengers experiencing periods of inactivity and relaxation in a negative way. Many older passengers might find this time to be more positively relaxing and enjoyable, and engage in fewer and “less active” travel-time activities which are indicative of greater comfort with the slow passage of time and their ability to simply let time pass (Schweizer, 2005). Many
younger passengers experience the opposite; negative attributions of boredom have bled into the most-often positive connotations of relaxation, and thus they engage in more travel-time activities to fill this time and speed it up, or disconnect entirely from the negativity of the experience and find refuge in their familiar virtual social spheres.

In support of findings by Ettema et al. (2012), the travel-time activities of some younger passengers on the bus can be argued as symptomatic of boredom or negative experiences. In reference to discussion in Section 6.2, these travel-time activities are related to killing time and disconnecting, as opposed to indicating a positive experience of time-out. Earlier discussion has explained that whilst the mitigating effects of travel-time activity in respects to killing time and disconnection often do not create distinctly positive journey experiences, nonetheless their use is important in its relation to an improvement in experience through attenuation of negative affects. However, the positive experiences reported by older passengers that are engaging to a higher degree with the social environment lead to the conclusion that continued disengagement at best perpetuates itself and does not lead to distinctly positive experiences of the bus.

6.3.3 Summary

In addressing the third research question, subjectivity is critical in understanding variation in the journey experiences and service perceptions of passengers on the bus. However within the individual context there is a trend from young to old. Older passengers both perceive and experience the bus more positively than their younger counterparts. Younger passengers are conducting a broader range of travel-time activities than older passengers, and are utilising mobile technologies and ICTs in high proportions, where older passengers do not. The rationale in related literatures that the use of ICTs improves the utility of a journey, and thus creates positive experiences of travel, is challenged in the specific context of the bus.

This thesis suggests that the experiences and perceptions of passengers of different ages are linked to their sense of engagement or disengagement with the public spaces
of the bus. This thesis has found that older passengers are significantly more comfortable talking to strangers on the bus, and furthermore are talking to a broad range of people on their journeys. This is in contrast to younger passengers that are significantly less comfortable talking to strangers, and furthermore are talking predominantly to friends as opposed to other groups on the bus. Younger passengers’ high use of mobile technologies and ICTs is suggested as a means of disconnecting from the intense social nature of the bus environment, either through shutting themselves off through the use of personal music players, or by re-engaging in their virtual social networks through the use of mobile phones. The activities of older passengers are more “present” and leave them open to the social space of the bus.

There is evidence that on buses where younger passengers feel a sense of identity with those they are travelling with, they engage more with their fellow passengers, even those whom they are unacquainted to. The literature has suggested that the travel experience is a part of identity-formation, and this thesis holds that such a feeling of identity or belonging is particularly pertinent to debates surrounding the bus and public transport more generally.

Younger passengers’ use of ICTs and mobile technologies mirrors their wider activity routines, extending them onto the bus and arguably meaning that the experience of their use in this space holds little unique value which might make this time valuable. For some it is suggested that the bus is merely a more uncomfortable and intense space in which younger people are simply conducting the same activities during their travel-time as they would in any other area of their lives.

Finally, the common experience of many younger passengers on the bus compared to their older counterparts is one of boredom. The literature suggests that boredom is an experience articulated and experienced particularly regularly by the young, and furthermore that younger people in modern society are the most susceptible to feelings of understimulation and disconnection during periods of restriction such as the bus journey represents. This thesis suggests that the use of ICTs and mobile technologies by younger passengers, and their generally higher engagement in a range of travel-time activities along a journey, is symptomatic of experiences of boredom,
and that these activities are engaged in in an attempt to mitigate these experiences by killing time and disconnecting from the stress this creates; sometimes to re-engage in more meaningful virtual spaces they frequently inhabit. This runs counter to the assumption that travel-time activities during the journey are responsible for the creation of distinctly positive experiences for some younger people, and suggests that travel-time plays a mediating role in the journey that is directed by the negative experiences the bus engenders for many in this age group.

6.4 Positioning travel-time activity

Where this chapter has gone into considerable depth in exploring and explaining the travel-time activity passengers and their use of mobile technologies and carried objects, a question still remains as to how important travel-time activity is relative to other aspects of service delivery which can also be seen to influence how passengers experience the bus. As discussed above, a key evolution of the findings throughout the process of analysis has been that while the qualitative discourses assert a strong connection between passengers’ travel-time activities and their perceptions and experiences of bus travel, the quantitative findings suggest a stricter disconnection between travel-time activity and any role it has in the creation of positive journey experiences.

Reflecting upon this, time has been given at the close of this chapter to considering the wider context within which the specific focus of this research is set. The quantitative results modify the qualitative findings by indicating a hierarchical structure to the different factors related to service provision which can be seen to play a role in the formation of perceptions and experiences; within which travel-time activity (or the potential for it) is a factor which most often has a relatively weak association when considered in relation to other more primary factors. The quantitative data demonstrate that this structure is a significant evolution of the qualitative findings because it serves to position travel-time activity relative to other – more principal –
aspects of bus travel. Therefore this thesis holds that it is useful that attention is paid to outlining an approximation of this structure. This structure assists in contextualising the discussion of the contributions to knowledge and the key research findings that follow in Section 7.1 (p. 290).

6.4.1 Contingency map of factors involved in the formation of passengers’ perceptions and experiences of bus travel

Figure 13 presents the contingency map of factors that are associated with passengers’ perceptions and journey experiences. This model has been constructed based upon existing theoretical frameworks which attempt to explain behaviour from the perspective of different levels of need. Maslow’s hierarchy of needs is the original example of this, and has previously been used in research which explores customer satisfaction (for example see: Lin, 2003; Griffin & Hauser, 1993). Maslow et al. (1970) identified different levels/categories of physiological and psychological need that can be positioned relative to one another in a hierarchy, in which the needs in lower (more primary) categories must be met first in order for an individual to pursue the needs in the higher categories. Musselwhite and Haddad (2010) have also noted that there is a hierarchical structure of travel needs amongst older drivers; and listed practical needs as the primary travel needs, social needs as the secondary tier, and aesthetic needs as tertiary needs. In a related sense, this thesis holds that there are different categories of factors relevant to bus travel of which those of more primary significance must usually be met before those of secondary and tertiary significance can be said to be of relevance. Robson (2009) has suggested a similar structuring of factors important in efforts to increase bus patronage, asserting that ‘hard’ factors such as reliability and fares must be met first before ‘soft’ factors such as comfort have the potential to increase patronage. The contingency map of factors related to service provision presented below includes elements of Musselwhite and Haddad’s classification, as this is the most relevant to the transport context. The following discussion explains the relationship between the data and the structure of the contingency map in Figure 13.

40 For a discussion of the specifics of Maslow’s hierarchy, see: Maslow et al., 1970.
The service aspects of bus travel form the primary factors and are analogous to Maslow’s (1970) safety needs and Musselwhite and Haddad’s (2010) practical needs in relation to the bus providing an essential service for accessing employment, personal engagements, and social obligations. The secondary and tertiary factors are more analogous to Maslow’s (1970) esteem and self-actualisation needs and Musselwhite and Haddad’s (2010) social and aesthetic needs respectively – with greater emphasis on space, comfort, and other non-instrumental aspects of bus travel.

Figure 13 – Contingency map of factors influencing passenger perception and journey experience on the bus
Age and subjective influences (i.e. social disposition, past experience, etc...) are not included as factors in the contingency map, despite being explained as having strong associations with journey experience and service perception. These factors are important in influencing passengers’ perceptions of all of the factors which are included in the contingency map (for example punctuality will be experienced differently dependent on age and past experience), however these have been excluded from the contingency map because of their subjective nature: they are not aspects of bus travel, but rather ‘lenses’ through which the journey experience is filtered and perceived.

6.4.2 Primary factors influencing perception and journey experience

This contingency map is highly relevant in developing the concluding discussion in this thesis, it is explained through a discussion which frames travel-activity – and its relative importance – within the wider aspects of bus travel, contextualising the findings and positioning them within the wider context of the bus as a service. This finding forms a part of the recommendations that this thesis makes for bus operators and industry stakeholders, and will be of use when considering ways in which to improve the passenger experience. It should be noted that this model is presented as an approximation of the significance or primacy of different factors related to bus travel, constructed from the quantitative and qualitative findings in conjunction with wider literatures. This contingency map is a finding that has become apparent in the thesis only at the analysis stage. As such, a more comprehensive explanation of the hierarchical structure of factors related to service perceptions and journey experiences – and a specific methodology with which to research this – are discussed as areas for further investigation in Section 7.2.3.
Practical needs

In this discussion the findings generated from the empirical data have prompted an explicit engagement with key instrumental aspects of service delivery – punctuality, reliability, and fares. The overarching theme of these instrumental aspects of service delivery maintains a ubiquitous presence in the findings. Robson (2009) has noted that ‘hard’ factors in service delivery (infrastructural factors that improve punctuality and reliability) are of more primary significance than ‘soft’ factors (which include creating a more desirable journey experience):

‘The overall evidence is that hard factors tend to be more important than soft factors and usually need to be in place before applying soft factors.’ (p. 133)

As the findings demonstrate their importance, to ignore the significance of these instrumental factors and focus discussion upon travel-time activity in isolation would run the risk of over-stating the relative weight of these aspects of perception and journey experience in relation to other critical factors in their formation, and thus be counter-productive to the aim of this thesis to contribute to a fuller understanding of bus travel as-a-whole.

Punctuality and reliability

As discussed previously, passengers remember a negative experience of the bus more vividly than a positive experience, and such negative experiences thus have a greater power to subsequently inform more general perceptions of the service (Guiver, 2007; Mann & Abraham, 2007). Gatersleben and Uzzell (2007) discuss how the delays regularly encountered in public transport use lead to negative experiences of journeys. This thesis supports these findings. The qualitative discourses have demonstrated that participants’ perceptions of the bus are heavily influenced by these primary factors, and the quantitative findings have explained that punctuality remains a strongly significant variable in every analysis related to perception and experience in the survey. The punctuality – and thus also the reliability – of services are critical factors
for passengers. As discussed in chapters V and VI, the regression analyses have demonstrated that passengers travelling on buses that are late are significantly more likely to report worse perceptions of bus services in general, more boring journey experiences, more stressful journey experiences, more uncomfortable journey experiences, and to report journey time as more wasted \( (p < 0.01) \). Further analysis shows that for passengers that were surveyed on buses which were on-time, 17.1% nonetheless spoke negatively about the issue of punctuality in the open response section at the end of the questionnaire (see: appendix 9.6, p. 355). This demonstrates that poor punctuality is not an issue which is encountered and then forgotten, but rather which retains pertinence for passengers even when they are experiencing a punctual journey – serving to reduce perceived reliability. Bissell (2010) has noted that the unpredictability of travel-time can give cause for the eruption of particularly strong negative affects. Likewise, it has been explained in the qualitative data chapter that participants’ perceptions of the bus were influenced heavily by punctuality and reliability, further underlining these as a factor of central importance to the experience of the journey. Earlier discussion has explained how the punctuality of the service served to set the experience of the entire journey. If lateness was encountered, the entire journey was negative from the outset.

**Fares**

The quantitative survey did not explore the issue of fares; however responses in the qualitative data serve to demonstrate their importance. Furthermore, fares are included as a primary factor because they are one of the key aspects of instrumental service delivery that the related literatures highlight (see: Passenger Focus, 2011, DfT, 2011a). In the first instance the issue of high fares alone can create negative perceptions; however, a key issue with fares is that they create an *expectation* of service – in that passengers are paying up-front for their impending journey(s). Therefore in particular when fare prices are perceived to be high, this creates a context within which poor service perceptions and negative journey experiences are amplified – due to the fact that passengers understand themselves to be paying for a
substandard service. Fares can therefore compound with other factors such as punctuality, adding to dissatisfaction. Because the bus is a mode which is relied upon by many as ‘a necessary aspect of everyday routine and public life’, often a bus fare is an unavoidable expense (Wilson, 2011, p. 634). Thus the cost of these fares is a central issue, and one which fundamentally affects perceptions of the service that people receive.

‘First buses are a rip-off, even for a student Dayrider it’s £3.30, and for a single from where I live to here, it’s £2.85 – for a SINGLE.’ (Male participant – Bus user group)

‘You see the quality going down as the prices go up, so I kind of figure “where is all this money actually going? Because it’s not going towards the bus service itself”.’ (Male participant – Bus user group)

‘They raised the prices of the U-Link pass from £1.70 last year to £2.50 this year and I see no difference whatsoever, and I predict that it is going to go up next year as well.’ (Male participant – Car user group)

‘[Discussing student bus passes at UWE] It’s free, it’s included in your accommodation costs, you get your U-Link pass automatically. I think that triggers a reason to get the bus. I think that was the reason why straight away I thought, “OK, I’ll use the bus then.”’ (Male participant – Bus user group)

These primary factors are closely linked to discussion in Chapter V in which the caveat is made that – irrespective of the potential for travel-time activity that it provides – the bus is, above all, a service. Therefore the finding that these key service aspects of punctuality, reliability, and fares are the primary factors in the formation of positive service perceptions and journey experiences demonstrates consistency in passengers’ discourses and responses to the survey. Further support for this finding is found in the ranking of KPIs conducted by Passenger Focus (2011). Chapter III has discussed these measurements in relation to the significance of travel-time factors to passengers; however these rankings also show that for passengers surveyed, the ‘length of time
waited for the bus’, ‘reliability’, and ‘value for money’ are the first, second, and fourth highest ranked factors respectively (Ibid, p. 6).

The primary factors form a part of the overall context within which travel-time use is enacted and experienced. The primacy of these factors does not mean that these are the only factors that must be focussed upon in efforts to improve passenger perceptions and experiences; the contingency map serves to demonstrate that without these primary factors being adequately met, it is more unlikely that the secondary or tertiary factors – with particular reference to travel-time activity – will be sufficient to encourage positive perceptions and experiences of the bus.

6.4.3 Secondary factors influencing perceptions and journey experience

At this point the primary factors in the formation of service perceptions and journey experiences have been explained. The secondary factors discussed below all have strong associations with the way in which passengers perceive and experience bus travel; however, they are lower in the hierarchy because they are contingent upon the primary factors being met before they gain significant relevance. The secondary factors have been explained as analogous to Musselwhite and Haddad’s (2010) social needs, and again these serve to frame travel-time activity and its influence upon perception and experience (as a tertiary factor) within the wider aspects of bus travel which have been found to be of more primary importance.

Sociality

Sociality has been included as a separate factor in the contingency map due to it being found to have an independent effect upon journey experience and perception. The sociality of the bus environment is heavily related to travel-time activity and the potential for it. As such, different socialites have been discussed in greater detail in Chapter VI alongside travel-time activity and its relationship with perception and experience.
Bissell (2010) discusses the sociality of the travel environment as a particular collective affect which can influence the experience of a journey. Watts and Lyons (2011) have noted that ‘how people feel about, and engage with, the world around them is crucial to productive as well as pleasurable travel time’ (p. 117). Therefore the sociality of the bus can be seen to exert an influence on the journey experiences of passengers by predisposing them to a particular mood or feeling within the social space, which is in turn perpetuated in its reciprocal effects upon others in the space. McCormack (2008) describes this as an ‘affective atmosphere’.

This has been explained in previous discussion, and is relevant here. The university U-Link bus service was identified several times by participants as having a different sociality to First buses. Because students felt they had more in common with the passengers around them on a university bus, the atmosphere was routinely described as more lively and friendly. Participants were more comfortable with the idea of talking to strangers in this situation, and generally enjoyed the social aspects of bus travel in this context. However on non-university buses, when confronted with socialising with the “general public”, participants’ discourses returned to one of greater social discomfort, and more instances of attempts to disengage from the social environment of the bus were discussed – with passengers sometimes turning to their MP3 players and mobile phones to make this disconnection. Bissell (2010) has noted that different socialities within the bus can affect what travel-time is put to use for. The sociality of the bus is a key influencing factor in travel-time activity.

Wider culture

The wider cultural context within which the findings are positioned has been raised in Chapter II; however a more comprehensive cultural analysis of bus travel in the UK is beyond the scope of the research questions and requires specific attention. This issue is discussed in relation to potential avenues for further research in Section 7.2.3 (p. 306).
The wider cultural construction of bus travel has an influence on people’s perception of social need. The bus is always perceived in relation to the car. “The car” is an abstract archetypal image against which other forms of transport are compared. Urry (2008) has discussed the rise of car culture and automobility, and argues that the car is the dominant cultural icon in UK society upon which perceptions of other forms of mobility are now commonly based. Dant and Martin have claimed that ‘other modes of transport simply cannot substitute for cars’ (2001, p. 144). Guiver (2007) writes that the freedom experienced on a car journey is often contrasted against the restrictions of the bus journey: the timetables, the routes, and the uncertainty. Sheller and Urry (2000) note that this culture is perpetuated in the car’s representation in popular media, providing ‘potent literary and artistic images and symbols’ (p. 739). Therefore the “power” of automobility is argued in these literatures as an important factor in the collective formation of perceptions and experiences of the bus, and these discourses underpin the decision to include the wider cultural aspects as a tertiary factor in the contingency map.

The qualitative data provide some support for this; several participants in the bus user focus group explained their bus use through not (currently) having access to a car. For these participants the bus was compared unfavourably to their past experiences of using a car. For participants in the car user group, this distinction was more clearly drawn. All participants viewed the car as providing freedoms that the bus did not – particularly the physical freedom of being in control of when they chose to embark on a journey, and where they could go. The car also gave feelings of security, privacy, and control over the environment.

However it is evident that this is not always a consistent factor – particularly amongst those that use the bus regularly – with some passengers very clear about the benefits of the bus journey experience in relation to that of the car. The qualitative discourses explain that several participants perceived the bus favourably in comparison to the car in relation to it being able to use bus lanes, and also for the better experience of travel-time that the bus journey engendered in relation to the opportunity to relax, read a book, and let the bus driver take control. This aligns with findings from Ettema et al. (2012), who note that in their study of public transport passengers on commute
Bus Tales: Travel-time use, technologies, and journey experiences on the bus

trips, a higher trip frequency was found to have a significant positive association with their cognitive evaluation of the commute experience.

Therefore the thesis holds that the wider cultural context of bus travel is arguably an influence in the formation of service perceptions; however what limited data Bus Tales and the focus groups generated on this particular issue raises questions as to what proportion of individuals this is a factor for, and furthermore how significant the cultural power of car travel actually is. It is suggested that it is stronger for those that have less experience of bus use to base their perceptions on; however it is also evident that several bus users perceived the bus less favourably than the car, suggesting a great deal of subjectivity in relation to this issue.

**Personal space**

Creating and maintaining a sense of personal space within the often socially intense spaces of the bus is a strong influence on the social needs of passengers, and as such is included as a secondary factor in creating positive journey experiences and service perceptions. Stradling *et al.* (2007) have identified the intensely social nature of the bus as often having a detrimental impact upon the experience of a journey, when unavoidable interactions or intrusions from other passengers disrupt the desired state of affective comfort for a particular individual. The discussion of the bus as a social space in the previous chapter suggests that a sense of privacy or personal space is important to passengers in creating a comfortable social experience of the journey.

Participants’ discourses from the qualitative data demonstrate the tensions within the social space of the bus. Earlier discussion has explained that some passengers look forward to the opportunity that the bus provides for socialising, whilst on the other hand, some participants described how they found this to be a negative aspect of the experience, and one which they would determinedly avoid. A sense of personal space is often important to passengers regardless of their social disposition. For some participants their feelings towards socialising are dependent upon context – particularly in instances of travelling with friends, even those passengers who generally
eschew social interaction on the bus derive enjoyment from chatting to those that they know. Previous discussion has explained that personal space is about more than simply the physical space that passengers occupy, however physical space can be an important factor in creating personal space, and this is discussed in the following section. Travel-time activity has also been identified as a method by which participants were able to create an experience of personal space through drowning or blocking out the sensory experience of the bus journey (through music players and reading materials), and also by tacitly disconnecting the passenger from the physical spaces of the bus, and signifying that they desired privacy.

6.4.4 Tertiary factors influencing perceptions and journey experience

The tertiary factors discussed in this section are argued in this thesis to be influencing factors on the primary and secondary factors, whilst being lower in the hierarchy due to their reduced significance when considered relative to these. The tertiary factors have been linked to Musselwhite and Haddad’s (2010) concept of aesthetic needs. Travel-time activity potential is a tertiary factor, and this finding contextualises the significance of travel-time activity relative to the other factors that have been identified throughout this discussion. Furthermore it frames the contributions to knowledge and key findings that are presented in the following sections.

Design – layout and space

Physical aspects of the bus – here the layout and the space – are included in the contingency map as tertiary factors because of their influence on passengers aesthetic needs. In terms of the physical space of the bus, it has been explained in the discussion chapter that the interior of the bus is often perceived as “cramped”, “formal”, “over-crowded”, “crammed”, and lacking leg-room – particularly in comparison to the spaces of the train and the car. These perceptions of the space are borne out by experience, and several passengers on Bus Tales and in the bus user focus group spoke of finding
their journeys physically uncomfortable when they find themselves squashed into a seat with little leg room.

The qualitative data demonstrates that the often restricted physical space of the bus regularly leads to negative experiences. The survey did not directly address the issue of physical or personal space, however the statistics demonstrate that 30.6% of passengers had experienced their journey as “uncomfortable” (n = 791). This finding shows that almost a third of people that were surveyed had experienced an uncomfortable journey – which is likely to have negative implications for their wider experience of the journey and for their perceptions of the service. The issue of comfort has been raised in Chapter III in relation to research by Bissell (2008), in which comfort during travel is discussed in terms of both mental and physical comfort. There is a limitation in the quantitative data being able to explain in more detail how passengers felt “comfortable” or “uncomfortable”. However, as discussed previously, participants’ qualitative discourses reveal that the restricted physical interior of the bus can often lead to physically uncomfortable experiences, where the social spaces of the bus are the most common cause of mental discomfort. In the list KPIs reported by Passenger Focus (2011), ‘comfort inside the bus’ was ranked third highest in terms of importance to passengers, which adds support to the inclusion of physical and personal space as a key aspect of this secondary factor.

Ride quality

The ‘ride quality’ of a given journey (in terms of the cleanliness of the interior and the smoothness of the driving) was another aspect of the environment which was mentioned by a number of participants in the qualitative data.

Passengers who encounter rubbish, vomit, food waste, or other things perceived as unclean can sometimes be left with a negative experience of the journey, and poor perceived cleanliness can add to negative perceptions of the bus, as the extract below illustrates:
‘It was disgusting, there was rubbish everywhere, and what really disturbed me was the pile of sick that I nearly stood in when I went to sit down. The smell was pungent and the fact that I could see this pile of sick slowly rolling around where the two empty seats were was really off putting.’ (Male participant – Bus Tales)

Uncomfortable experiences created by bad driving are also an issue in relation to the physical aspects of the bus. Some participants highlighted that the “jerky” nature of some driving, and also issues of driving too fast, gave them concerns over both comfort and safety.

‘The bus driver will start driving before everyone’s sat down and so there’ll be like 10 people that get thrown forward as they get on the bus.’ (Male participant – Bus user group)

‘I don’t like it [not having control over the vehicle]. I always get scared when I’m a passenger because I don’t trust the bus driver.’ (Female participant – Bus user group)

‘The bus drivers are a bit mad with their corners...’ (Female participant – Bus user group)

‘They frequently run into the kerb... They’ll just drive into the kerb, especially the U4 drivers. It’s awful!’ (Female participant – Bus user group)

Therefore together, the physical aspects of the bus comprise an important set of factors for passengers, and the quality of the ride experience will have an influence on passengers’ aesthetic needs. The discussions of participants demonstrate that whilst the physical aspects of the bus are highly important to many passengers, in general they do not outweigh the primacy of the service aspects that form the primary factors in the contingency map.
‘If I don’t get a seat or it’s a bit hot or something it’s going to be a bit uncomfortable but as long as it gets me to where I’m going... You know, needs must.’ (Male participant – Bus Tales)

‘The bus was slightly let down by leaking window and no effort to clean (yesterdays paper was on the floor). But to be honest that’s OK in conditions like this, as I got from A to B fine!’ (Male participant – Bus Tales)

‘The bus gets you from where you are to where you need to go. That’s – for me – the long and the short of it.’ (Male participant – Bus user group)

Therefore this thesis holds that these physical aspects of the bus are a tertiary factor in the formation of perceptions and experiences of bus travel.

The above discussion has explained the contingency map within which this thesis finds travel-time activity to be positioned. It serves to demonstrate the finding that whilst some of the results provide evidence that travel-time activity can have an effect upon journey experiences and service perceptions, this effect in actuality is most often subsumed by the more primary factors related to bus travel. The instrumental service aspects of bus travel – punctuality, reliability, and fares – are the primary factors. These must be perceived as acceptable before the secondary and tertiary factors can be said to be of relevance in most cases. The secondary factors of sociality, personal space, and wider cultural representations of bus travel have all been argued as important factors in the formation of journey experiences, and attending to passengers social needs – dependent upon the primary factors having already been considered. The tertiary factors of design, ride quality, and the potential for travel-time activity are aesthetic needs which can be seen to be influencing factors upon the primary and secondary factors, and in most cases hold relevance only once these have been taken into consideration.
6.5 Chapter summary

This chapter has developed the findings presented in Chapter V and explained them within the context of existing research. Subjectivity is at the heart of travel-time activity on the bus. The different ways in which people perceive their bus journey means that activities, carried objects, and technologies are put to use for different purposes at different times, and therefore these have a number of different influences upon the experience of the journey.

This thesis has demonstrated that travel-time use on the bus is not as restricted as has previously been suggested, but that the specific spatial, temporal, and social qualities of the bus predispose the passenger to particular activities and experiences. Sometimes, the bus journey provides the opportunity for a piece of personal time. Travel-time activities can help to create a sense of time-out and relaxation, or provide the passengers with the opportunity to complete/organise personal tasks. In other cases activities and objects are used as tools by the passenger to shield themselves from unwanted intrusions into their personal space, or to control and compress the experience of the journey. Mobile technologies are particularly important in this respect, and especially for younger passengers, are allowing them to disconnect from the social environment through music and sound, or to engage virtually in their wider social networks through the use of ICTs.

There is a significant difference between younger and older passengers on the bus. Younger passengers engage in a broader range of activities during travel and use technology to a greater extent. Any yet older passengers are significantly more likely to enjoy their journeys and to have a positive perception of the bus. Specific issues of engagement and boredom have been identified as helping to explain these differences, and have identified the social aspect of bus travel to be particularly important in influencing people’s experiences of the bus journey.

The disparity between the qualitative and quantitative findings has been explained in this chapter as resulting from the different methods by which they were generated. Where the qualitative findings have shown in greater depth the subjective meanings that travel-time activity gives to the experience of bus travel, the quantitative data
demonstrate that participants’ immediate experiences and perceptions are dominated by more primary factors such as punctuality, age, and a person’s feelings of social comfort within the bus.

This final important finding has been explained in detail in Section 6.4. Attention has been paid to outlining the hierarchical structure of factors that this thesis finds to be influential in creating perceptions and experiences of the bus. Through doing so, the key travel-time findings that follow in Chapter VII are presented within the wider context of the bus as a service, and the *relative importance* of travel-time activity as a part of the attractiveness of bus travel is explained.
Chapter VII: Conclusions, recommendations, and further research

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7.0 Conclusions, recommendations, and further research

Bus travel is a rich and diverse experience; the journey means different things to different people, and travel-time is used and experienced in many different ways. This chapter concludes the main discussion in this thesis, and draws together the key findings from the empirical data into a consideration of what the new knowledge generated in this thesis means in the wider context of bus travel in the UK.

This chapter is split into two main sections. The first demonstrates the original contribution to knowledge that has been generated by this thesis, and draws together the key findings from this research. Second, the closing section explains the opportunities for further research, and discusses the findings in relation to their potential wider relevance to policymakers and stakeholders in the bus industry.

Discussion in Chapter VI has highlighted that the findings generated in this thesis raise several new questions which are fertile areas for further research. As discussed in Chapter III, there is a sustained academic interest in travel-time use on public transport as a dynamic and ongoing field of research – to which new insight is being added regularly. This thesis contributes to the understanding of travel-time use on the bus, however the process of exploring the journey experiences of passengers has opened up new avenues of investigation that were not originally anticipated, and therefore not possible to fully attend to with the data collected here.
7.1 Contributions to knowledge and key findings

7.1.1 Contributions to knowledge

At the close of Chapter III, three key gaps in existing knowledge were identified in research into travel-time use in the context of bus travel. The first of these relates to the lack of understanding of the links between research into wider travel-time activity on public transport, and research which has explored the journey experiences of bus passengers. The second relates to the ways in which carried objects, mobile technologies, and ICTs are used by bus passengers during travel-time, and the opportunities that these create for passengers to craft their journey experiences. And third, there is a lack of detailed understanding of the subjectivity of travel-time in relation to how the differences and similarities between individuals and groups on the bus give meaning to both subjective and collective experiences of travel-time.

This thesis set out with the explicit aim of attending to these gaps through the generation of new empirical data on the use of travel-time by bus passengers. This thesis has contributed to knowledge in its explanation of the range, level, and types of different activity that are occurring on the bus, and how these activities form a part of passengers’ journey experiences and service perceptions. It has been found that travel-time is often used for simple, everyday activities which are of benefit to passengers in several different ways. Many passengers enjoy time-out and time-for activities during this time, where others use activity to mitigate negative experiences of boredom, stress and social discomfort. Therefore travel-time activity can at times create distinctly positive and unique journey experiences, and at others simply make the experience less negative. However, travel-time activity is only one aspect of passengers’ bus journeys. In drawing back and considering these findings, the thesis has also explained that other factors are of more primary concern than travel-time use in the creation of journey experience and service perception, and must be considered before travel-time use is of strong relevance. Thus, through reflecting more widely upon its own more specific perspective, this thesis has provided important context to
the findings that have been generated – positioning them relative to other influential aspects of bus travel.

In researching the use of carried objects, mobile technologies, and ICTs during travel-time, this thesis has explained how these items facilitate travel-time activity on the bus. It has provided new empirical evidence of the types of mobile technology and carried objects that are used, which are currently the most popular, and also how the use of these can give meaning to the experience of the journey and enable passengers to craft their travel-time. Furthermore, this thesis has explained how passengers’ interaction with mobile technology – and in particular emergent ICTs – is re-shaping the ways in which travel-time on this mode can be used, allowing greater potential for the tacit demarcation of personal space and the opportunity to disengage somewhat from the public space of the bus and connect virtually to wider social networks. However, in relation to this, discussion has emphasised that an individual’s sense of engagement and “presence” within the public space of the bus is important in forming perceptions and experiences of travel-time. Thus, this thesis has generated new understanding of the potential negative effects of individual disengagement from the social environment of the bus, in terms of it fostering an antisocial disconnection between passengers that might perpetuate and intensify negative perceptions of socialising in this space – particularly if the practice becomes increasingly common.

This thesis holds that subjectivity is at the heart of the bus journey. Travel-time means different things to different people and hence it is used and experienced in diverse ways. This thesis has contributed to an understanding of this subjectivity in its explanation of the different ways in which travel-time is primarily perceived by bus passengers. Furthermore it has explored this subjectivity in relation to passengers of different ages, and found significantly different activity practices, journey experiences, and service perceptions between older and younger passengers, which have not been specifically identified in existing research. Wider social norms and technological trends between older and younger age groups are played out on the bus, and serve to dictate what passengers of different ages perceive the bus journey experience to be and what they put this slice of time to use for.
Additionally, this thesis has contributed to existing methodological practice through its development of two novel methods of data collection: online focus groups on social networking websites, and large scale in-situ travel-time surveying of bus passengers. These additional contributions to knowledge did not form a part of the research questions, but rather came about as a response to them. The forms of these novel data collection strategies have been discussed in detail in the methodology.

7.1.2 Research findings

This section presents the main findings of this thesis, and considers their relevance to those wishing to promote bus travel from a commercial or a policy standpoint.

This thesis finds that there is a hierarchical structuring evident in the factors that are related to service perceptions and journey experiences on the bus. More primary factors in this contingency map must first be attended to before those of lower primacy can be said to be of strong relevance. This finding underpins the other findings. Travel-time activity is a tertiary factor in journey experience and service perception, and therefore this thesis finds it to be of strong significance to perception and experience only once the primary and secondary factors have been considered. This finding is important when considering how resources to improve the passenger experience and increase the attractiveness of bus travel might be allocated to different aspects of the service.

Passengers perceive the physical space of the bus as restrictive in comparison to other modes. Buses are often seen to have less physical space, engender shorter journeys punctuated by frequent stops, and expose the passenger to disruptions from other travellers. The spaces of the bus are not particularly well suited to economically productive travel-time activities (e.g. working), and therefore travel-time activity on the bus does not fit easily into the appraisal context of some existing
research into travel-time use. However, the level and range of travel-time activity occurring on the bus is not more limited than on comparable modes such as the train, rather it is often simply of a slightly different type, and more suited to the spaces of the bus. This challenges the suggestion in existing research that travel-time use on the bus is likely to be much more restricted than on other modes. Furthermore, it has also been suggested in Section 6.1.2 that bus travellers – whilst not economically productive – are nonetheless still somewhat economically active through their consumption of goods and media. The new empirical findings in this thesis explain which travel-time activities are most suited to the spaces of the bus, and are of use when considering how travel-time activities on the bus might be facilitated.

The carried objects, mobile technologies, and ICTs used on the bus are primarily those that are readily to-hand, and do not require a person to unpack. This helps to explain the finding above. Particularly with reference to emergent ICTs such as smartphones, the increasing miniaturisation, functionality, and connectivity of these devices is expanding the range of activities that are possible on-the-move, and these are suggested to be particularly suited to the restricted spatial nature of the bus. This is useful when considering how the use of popular carried items might be facilitated on the bus; however it is also recognised that the increasing use of these items can sometimes also have a negative effect on the sociality of the journey.

On the bus, affectively comfortable journey experiences are primarily aided by travel-time activity in one of three ways: through ‘time-out’ and ‘time-for’ (relaxation or personal time) activities; through activities for distraction/displacement (i.e. killing time and lessening the negative experiences of the journey – boredom, social discomfort, stress); and through social activities. Explained below:

Periods of relaxation and time-out form the most common positive articulations of travel-time on the bus. Passengers enjoy the time that the bus provides to listen to
music, think, daydream, read, and gaze out of the window. The restricted space of the bus is – for some – a desirable aspect of the environment as it means that they legitimately can’t be doing anything. This aspect is an important feature of the time-out that the bus engenders for many passengers. Travel-time is sometimes also valued as personal time in which tasks can be completed or organised. Passengers’ discourses show that the travel-time activities they engage in during time-out complement and facilitate this experience of time. Everyday, simple activities that have a relaxing or personally and socially productive function are favoured during such periods of time-out and time-for on the bus.

Whilst for some passengers time-out/time-for are desired ends, for others travel-time activity on the bus is merely engaged in as an attempt to attenuate negative experiences. This is done through either lessening the effects of the duration of the journey (killing time), or lessening the effects of other passengers (disconnection/disengagement). This thesis provides evidence of many passengers conducting a high number of activities (5-10) during one bus journey. Given the relatively short journey times this suggests a “flitting” between activities. The restrictive nature of the bus environment and the shorter, discontinuous journeys mean that boredom is a common experience, and passengers engage in activity to kill time during such a period. Travel-time activity is also for some passengers a method of shielding themselves from the perceived intrusions of others into their personal space on the bus. Because physical space on the bus is often limited, the opportunities for escape from this negative experience are restricted to disengagement and disconnection activities such as listening to music, reading, and using mobile phones.

For some passengers, social activities on the bus form an important part of the experience. The social aspect of the bus can create some of the most positive experiences of the journey, and also some of the most negative, dependent upon whether social interaction is desired or not. Most passengers generally enjoy socialising on the bus when it is with people that they know, and socialising will very often take precedence over other activities that might have been conducted if travelling alone. Some passengers also enjoy the opportunity that the bus provides to meet new people and to talk to strangers or “bus acquaintances”.

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Engagement with the social nature of the bus is highly important in passengers’ journey experiences. Those passengers that felt more comfortable with the mere potential for social interaction with strangers on the bus were significantly more likely to report a more enjoyable experience, a less stressful experience, a more comfortable experience, to report their time as less wasted, and furthermore to have a better perception of the bus in general. This demonstrates that the intensely public spaces of the bus are a key issue for some passengers. This finding is useful because it suggests that focussing on ways in which to facilitate greater social interaction and reduce the social intensity of the public space could be a powerful way to improve journey experiences and service perceptions. It is recognised however that this is a highly subjective issue and likely to be dependent to a greater degree upon the social disposition of the individual.

On the bus travel-time activities are not mutually exclusive to specific types of journey experience such as time-out or killing time. For example, some passengers listen to music as a part of a relaxing experience of time-out, whilst others listen to music to reduce the social intensity of the public space and speed up the duration of the journey. What this thesis finds to be of greatest importance in the relationship between travel-time activity and journey experience is what passengers perceive their travel-time to be. It seems almost a self-fulfilling prophecy that if passengers conceptualise or view their travel-time on the bus as an unavoidable chore then it will most likely be experienced as boring, wasted, or stressful; however, if it is conceptualised as a valuable piece of free time then it will most likely be experienced as a relaxing, positive, and desirable slice of time. Subjectivity is at the heart of experience and perception of the bus.

Different findings related to travel-time activity and journey experience are generated dependent upon how the bus is investigated. The qualitative and quantitative data produce different explanations of the effects of travel-time activity
upon journey experience and perception. This is important when considering how journey experience is represented, and which types of research are used to inform service improvements. The quantitative data does not find consistent significant associations with travel-time activity across experience, and focuses instead upon punctuality, age, and social comfort. The qualitative discourses demonstrate a greater interplay between travel-time activity, experience, and perception.

**ICT use on the bus is increasingly enabling virtual communication with wider social networks during travel-time.** Mobile phones facilitate texting and phone-calls, and more recently smartphone devices are allowing passengers to use the internet, send and receive emails, and access social networking websites. This is primarily occurring amongst younger passengers and helps them to kill time, organise social obligations, and disengage from the social environment of the bus whilst simultaneously engaging with their virtual social networks. The use of these ICTs is very popular amongst those aged 16–24, and there is merit in considering how such virtual communication might be further facilitated.

However, whilst such virtual communication is popular, it can have a negative effect on the sociality of the bus by creating a more divided, antisocial atmosphere. This is suggested to foster a sense of disengagement from the public space of the bus, which has been discussed above as influencing negative journey experiences and service perceptions.

The ways in which people engage with and utilise mobile technology is incredibly fluid, as is the technology itself. There is a huge and constant potential for change in a rapidly moving market. The future of travel-time use will be different, as will the future of bus travel, and there is a strong argument for keeping abreast with such changes and understanding the opportunities and challenges that mobile technologies present.
There is a significant difference between the travel-time activities, journey experiences, and service perceptions of older and younger passengers on the bus. Younger passengers are engaging in a wider range of activities during their journeys, and also conducting more activities per journey than older passengers. However, younger passengers report that they are significantly more stressed, more bored, and report their time as more wasted than older passengers. Furthermore, younger passengers have a worse perception of buses than their older counterparts. Thus it is suggested that younger passengers’ travel-time activities are symptomatic of these negative experiences, and are being used to kill time and disengage from the bus. This demonstrates that different groups of passengers on the bus have significantly different experiences, and this thesis holds that this should be a consideration when seeking to effect improvements in the travel experience for bus passengers.

There is a strongly defined “technology divide” between older and younger passengers on the bus. This reflects a wider technological trend in society, and it is pronounced on the bus. Far higher proportions of younger passengers are using mobile phones, accessing the internet, and listening to music than older passengers. This is linked to the acceptability of different activities between the age groups. Younger passengers are more comfortable with themselves and others using mobile phones, listening to music, and eating and drinking, whereas older passengers are more comfortable with talking to strangers on the bus. This demonstrates that older passengers are engaging more with the social environment of the bus, where younger passengers feel a greater sense of social disengagement. Thus, many younger people are using mobile technologies to shield themselves from unwanted social interaction and connect with their wider virtual social networks.
7.2 **Implications for industry and beyond**

The findings from this novel research have practical implications for the operation of bus and other public transport services, and methodological implications for future studies into travel-time use and the passenger experience. These implications have relevance in three key areas: increasing the attractiveness of bus travel, resource allocation, and vehicle design.

7.2.1 **Theoretical and practical implications**

The intention throughout this research has been that the findings generated will be of relevance to service delivery and to the actual operations of bus services. Whilst it has not been within the scope of this thesis to explore the implications of these findings with policymakers, stakeholders, and representatives from the bus industry, nonetheless it has been possible to make several suggestions of where these findings are of relevance. Furthermore this represents an opportunity for future research in exploring in greater depth the practical implications of these findings.

The first implication discussed here is the relationship between this thesis and the existing studies which have contributed to the travel-time debate. Whilst specifically linking the findings to the travel-time debate (or critiquing current methods of appraisal) is not a stated aim of the thesis, nonetheless it can be seen that this research contributes to the current body of knowledge about the value of time on public transport – which has implications for transport planning. This thesis has explained the travel-time experiences of bus passengers at the subjective level, and at the same time explored statistical trends in the subjective experience at the aggregate level. In its explanation of travel-time activities and journey experiences, this research has demonstrated that travel-time on the bus does have a value to the individual, and this value is changeable dependent upon the context of the journey and the person making it. This thesis has not attempted to quantify the value of travel-time in a sense which would fit with current economic appraisal methods; however the findings show that the bus has a legitimate place in the travel-time debate, and they support the
arguments found in existing research for a revision of the values currently assigned to travel-time in transport appraisal (DfT 2011b).

Such a task will not be simple. There is scope for methods of evaluating VTTS to consider productive use of time across modes, and its impact on both work and non-work time. In the specific context of bus travel, considering the finding that the main activities engaged in by passengers have a largely personal value, the most relevant way in which value could be assigned is through recalculating the value of non-working time on the bus. As discussed in Chapter I, VTTS for non-working time are currently calculated on the basis of Willingness To Pay, and the methodology used to attain this value was a series of Stated Preference scenarios in which people were asked whether (and if so to what degree) they would be willing to trade time for money (Mackie et al., 2001). It is evident that a similar scenario-based approach could be developed to explore the value of travel-time activity under different circumstances. Travellers could be presented with a number of different scenarios related to travel-time activity on the bus, and asked to give the value that they would place saving this time in the new context of the activity.

To illustrate, a traveller might be asked to consider first that they are standing on a bus on the way home with nothing to do, and asked how much they would be willing to pay to cut their journey time. They might next be asked to consider that they have a seat on the bus and a newspaper, book, or smartphone to hand, and asked to provide a value for how much they would be willing to pay in this new context. Such an approach could then provide a number of different valuations for travel-time in different contexts, and these could be used to either arrive at a more accurate aggregate valuation, or incorporated into a more detailed calculation of VTTS.

Such a revision would require a number of fundamental changes to the methodology. First, it would require transport authorities and the government to take a different approach to the use of VTTS in appraisal. At the current time, all travel-time is valued negatively, and therefore time savings are viewed positively. A recalculation of the value of travel-time could have the effect of reducing the value of travel-time savings on public transport. This is the key issue, in that some people positively value the time
they have on the bus and therefore would not pay more for a faster journey, lowering the value of time savings to them, and lowering the value of time on that mode more generally. This would mean that without a change in appraisal methods to recognise that reductions in journey time are not necessarily an economic benefit, travel-time on the bus could end up being valued even more cheaply than is currently the case. However, with an appropriate change in the underlying philosophy of appraisal to recognise the positive value of travel-time in certain cases, the analysis could be revised to incorporate this. Second is that the general value of non-working time which is currently assigned equally across all modes would have to be split to represent the differences in value that travel-time activity creates in the different travel environments (bus, train, car). Third there would potentially need to be an even finer – within mode – differentiation between values of travel-time for different passengers (or passenger groups) at different times of the day and on different journeys. This would be a difficult but not impossible task, and would provide a more accurate and realistic set of aggregate figures for the varied and subjective values placed upon personal time by individuals.

This thesis – and the existing studies by Lyons et al. (2007; 2011) and Holley et al. (2008) into travel-time use on the train – have shown that it is important that the positive value of travel-time on public transport be accurately represented in appraisal, and this research provides useful data on travel-time use on buses which could be incorporated into such an analysis.

In terms of practical implications which are more related to actual service delivery, the first and most important “message” for industry is that whilst bus operators need to focus on meeting the basic functionality of services (punctuality, fares, etc…), there are opportunities for operators to look beyond these measures to explore the potential for travel-time use and their role in facilitating and shaping it. In essence this represents a situation of tapping into “higher level” aspects of the journey experience through a focus on travel-time, which would be entirely possible once the service aspects have been satisfactorily attended to.
Following from this there is a need for the industry to stay abreast of technological developments, particularly in ICTs, to understand the ways in which passengers engaging with these during their travel-time, and what this means for the journey experience. As the use of technologies becomes increasingly ubiquitous, there is a distinct opportunity for operators to recognise travel-time as a piece of the day in which increasing numbers of passengers are relaxing and socialising through their use of these technologies, and that within this is an opportunity to re-frame time on the bus and market this value.

Finally, the findings of this research will be of particular relevance in terms of vehicle design. This research demonstrates the need to further understand how the physical space affords social interaction, and bus designers should explore how different designs affect the opportunities for being sociable or offering privacy.

There is an opportunity to facilitate positive social experiences; this research has demonstrated that many passengers enjoyed the social environment of the bus, and the opportunity to chat to friends, family, acquaintances, and sometimes strangers. There is the potential for the layout of buses to be updated to reflect this social desire. It was noted in Chapter V that many of the participants felt that the bus environment was restrictive and formal in its layout. Perhaps in a similar way to the train carriage or more modern coaches, the bus might benefit from the inclusion of tables or communal seating areas, where it is easier for passengers to chat to a wider group than just the person sat adjacent to them.

At the same time however it is necessary to consider ways in which a sense of personal space and privacy might also be better created for some passengers. Whilst some enjoy the social experience, for others it is a significant factor in creating uncomfortable or unpleasant journey experiences. This would suggest that alongside the opportunity to improve the social atmosphere of the bus through vehicle design, there is a need to provide areas in which people can enjoy switching off and relaxing without a feeling of social intensity. This raises challenges for designers, particularly in terms of providing good accessibility to the bus for all passengers at the same time as attempting to provide contrasting social experiences. It is difficult for example to
simply zone off different areas (i.e. top deck and bottom deck/front and back) for different experiences, as this restricts the choice of where people can sit, and could cause further stress or conflict. It is however an interesting challenge and one which potentially has a very positive pay-off in terms of managing travel-time experiences if it can be achieved in a simple but effective manner.

Further to this, there is a question of how bus operators might facilitate travel-time activities through vehicle design and augmentation, for example through the provision of Wi-Fi, which has already been trialled on some bus services in the UK. Discussion in Chapter III introduced the concept of the ‘Google Bus’ and the ‘entertainment coaches’ on trains, both of which facilitate or directly provide on-board entertainment to travellers. There is a possibility to incorporate such services onto local buses. The positive value of this to passengers would evidently be the highest if such services could be provided for free and the cost offset through a rise in passenger numbers, however there is also the opportunity for operators to create additional revenue streams through the provision of premium-based Wi-Fi or entertainment services.

These suggestions demonstrate the practical relevance of this research, and ignite a new discussion about the possibilities for bus service provision and alternative ways of increasing patronage as we push further into the 21st Century. If the case for investing in increasing the speed of bus travel might be weak in terms of VTTS on buses, would people instead be willing to pay for an improved environment in which they can conduct activities?

### 7.2.2 Methodological implications

The findings of this thesis also present a number of methodological implications for future research into travel-time use during travel and into the journey experience more generally.

The first of these is the issues which are raised when exploring different categories of users on public transport. This research has explained the contextuality of the bus
journey experience, which suggests that journey experiences vary amongst individuals of different ages and with different journey purposes. The main implication of this is that future methodologies and surveys should be sensitive to drawing out these differences, and exploring them in finer detail. Perhaps the best example of this is the perceived age divide on the bus which this thesis has explained. By understanding that distinct categories of passengers have similar experiences and perceptions of bus travel, future studies can include such categorical groupings into their research tools.

The age divide on the bus is also an example of the second methodological implication. Specific research into the differences between the journey experiences and service perceptions of older and younger passengers in respect of all aspects of bus travel is an avenue which requires further attention. In terms of understanding travel-time activity and journey experience at the aggregate level, and making changes to service delivery based upon this, it is necessary to gain a better idea of what changes (if any) might be desirable. This would mean that the travel-time desires of passengers of different ages could be better catered for, and by using a more targeted approach in this way journey experiences could potentially be improved for a greater proportion of passengers.

This implication is perhaps most clearly demonstrated by the current ‘technology divide’ between younger and older passengers on the bus. Younger passengers are engaging with new technologies and are arguably leading the way into a new common experience of being on-the-move, and yet older passengers are having significantly better journey experiences than their younger counterparts – suggesting perhaps that there is something the younger generation are missing in their experiences of the bus. This thesis raises the question of whether – over time – a gathering perception amongst many younger passengers that the bus is an environment that needs to be disengaged from could have the effect of amplifying negative socialities on the bus and reinforcing the poor perceptions and experiences of the younger passengers. As mentioned previously, disconnection in the spaces of travel is no new phenomenon; the shielding power of newspapers and books has long been a comfort to travellers of all ages. However as new mobile technologies make these shields stronger, and new tools of disconnection become more powerful and effective, the sociality of the bus environment has the potential to become ever-more divisive, and the positive
experiential qualities of engagement with – or simply unprotected affective comfort within – the public space of the bus could be diminished.

This raises the question as to whether the differences in experience and perception between passengers of different ages are representative of a generational effect or of a cohort effect. It is suggested that whilst a lack of a sense of engagement amongst younger passengers on the bus is something which might diminish with age, nonetheless the recent emergence of mobile technologies and ICTs which make disconnection particularly effective and robust might indicate that this is a unique point of change in the ways in which the public spaces of the bus are perceived by passengers.

There are implications here for resource allocation in service improvements, particularly in terms of considering whether the future “common experience of travel-time” will be different than it has been in the past. Should time and resources be put into attempting to cater to the new technological desires of younger passengers if their negative experiences are simply a generational phenomenon? This is potentially of great importance, and the perceptions and experiences of passengers of different ages could be the source of comparative findings that have the potential to contribute to greater understanding of the experience of bus travel as-a-whole.

There are two further methodological implications from this research related to the analysis and interpretation of journey experience and travel-time activity data. Discussion in the methodology has explained the different forms of data that were used in this thesis. With respects to the qualitative data, these were collected from a sample of predominantly younger travellers (with some exceptions), and in the case of the focus groups, from students studying at the UWE. These findings have been invaluable in providing explanations for individuals’ experiences of travel-time activity, and furthermore in providing the themes for the survey and contextualising the quantitative data. The expectation that through filling time with activity a better journey experience would result has been challenged by the age-related findings in this thesis, with younger passengers doing more but having worse experiences than older passengers.
Chapter VII: Conclusions, recommendations, and further research

There are implications here for understanding the differences between datasets in such mixed-methods approaches, and in considering how to assign weight or value to the different findings which are generated. In the case of this thesis, it was intended that the quantitative and qualitative datasets could be used to support and strengthen one another, and that the findings would align. Rather, two perspectives on the same topic have been produced. The findings of this thesis could be useful in developing a framework to assess how the two datasets might interact in terms of the different scope of the journey that each type of data would cover. Such a framework would consist of a representation of the different theoretical issues and analytical scenarios which are encountered when deploying a mixed methodology, particularly in relation to the order of the methodology (i.e. quantitative leading to qualitative, qualitative leading to quantitative, or a less-specified “direction”). For example when following the order used in this thesis, the quantitative phase was constructed from the qualitative data, and intended to augment the qualitative dataset. However, this had the unexpected consequence of producing two different – and somewhat contrasting – perspectives. Further research into other mixed-methods studies could be useful in exploring their outcomes and incorporating these into a framework to assist future adopters in choosing the appropriate types of mixed-methods approaches.

This leads into the final implication of this research, which is related more widely to data analysis in research into journey experiences and travel-time use. This thesis has explained in great depth the subjectivity of the bus passenger experience. Whilst working at the subjective level is critical to understanding the subtleties and idiosyncrasies of different individuals’ experiences, a tension has been identified in this approach in terms of the need to generate findings which are relevant at the aggregate level – which in practical terms is likely to be of the most use and interest to bus operators. Therefore in the vast majority of existing research into journey experience the greatest efforts in analysis are poured into finding similarities and patterns in the data which can serve to “rein in” the pure subjectivity of the experience and allow statements to be made which apply to a larger number of passengers. What this thesis demonstrates is that whilst such an aggregation of experience is often necessary, at the same time consideration should be given to methods of analysis which seek to find
differences between samples, as opposed to similarities between them. Such an approach can therefore quantify difference as opposed to attempting only to reduce it.

An appropriate approach by which to explore this notion would be a segmentation of bus passengers, for example through a cluster analysis. The aim of segmentation is to create meaningful subgroups within a dataset which all share a common property (for example demographically, geographically, or attitudinally). In this sense the approach is quantifying difference as it seeks to make explicit and manageable the differences inherent within a larger sample. Segmentation analysis is most commonly found in marketing; however it has seen application in the transport context. Anable’s (2005) segmentation of car drivers according to attitude is the most relevant to this context. Through classifying drivers based on five attitudinal factors Anable (2005) was able to draw out explanations for mode choice amongst drivers and make recommendations on where best to focus resources in encouraging behavioural change. If this approach were to be adapted and applied to bus users, it would be possible to segment bus users demographically and attitudinally, and seek explanations for variations in journey experience based upon these classifications. Such knowledge could help to explain subjective experiences of travel-time and assist in efforts to improve the journey experiences of different segments of the bus user population.

7.2.3 Further questions and future research

Finally, in concluding this thesis, it has been explained throughout that this research represents an exploratory study into the use of travel-time in relation to journey experience and service perception. The purpose of exploratory study was to open a space for discovering the rich detail of the journey experience and to consider the implications of these experiences. The thesis therefore prompts many avenues for future research. These are outlined below.

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41 These were: Moral norm.; Environmental attitudes, worldview, and knowledge; Efficacy; Identity (behavioural norm.); and Habit (Anable, 2005, p. 68).
Chapter VII: Conclusions, recommendations, and further research

The first is to explore the contingency map of factors related to journey experience and service perception in greater depth with a specific research methodology. This finding has been explained as an approximation of a hierarchy of factors that is evident in the empirical data and existing research. This contingency map offers a tool that has a use theoretically and in practice for those wishing to promote bus travel – in terms directing future areas of research into bus travel and allocating resources for the improvement of the passenger experience. Practically, this would be best achieved through further mixed-methods research to explore the relative significance of the different factors in greater depth. A survey could be constructed on which participants would rank the different factors outlined in the contingency map, and following from this, qualitative interviews with a sample of these participants could explore the reasoning behind people’s choices. This would provide both an understanding of how significant different factors are across the bus user population, and furthermore provide explanations for the structure of the contingency map which could assist operators in effective resource allocation.

Second it has been discussed throughout previous chapters that this thesis seeks to generate findings that are of relevance to the wider bus use population, whilst recognising that there are limitations to the findings. The new insight and knowledge presented in this thesis has been generated from data collected from a sample of bus passengers and car drivers in Bristol, UK. Earlier discussion has explained that the cultural construction of the bus is an important aspect of how the bus is perceived and experienced, and there will be differences in “bus culture” at local, regional, and national scales. Thus, whilst this thesis holds that the findings generated in this thesis are relevant to bus travel more generally, there will be contextual differences observed in the nature of these in different locations (i.e. London has a different profile to the rest of the UK, and there are likely to be differences between rural and urban areas). This represents the first opportunity for further research, in expanding the approach taken in this thesis within the scope of a larger project to explore variation in travel-time activity and journey experience at a national or international scale.
Whilst the scope of such a study would be broad, and would involve a comparative cultural analysis across several different locations. This would require a combination of interview and ethnographic data, alongside a historical analysis of the transport systems in different locations to provide necessary context to the findings.

Third is to develop the notion of economic consumption during travel-time as a further facet of the travel-time debate. This thesis has explained how travel-time on the bus might encourage particular forms of consumption – particularly of media. It is not clear how possible or useful such an approach would be, however it is an avenue which merits some further consideration. This is a potential further application of Lyons et al.’s (2007; 2011) approach to exploring the economic utility of travel-time, and the concept of economic consumption during travel-time having a quantifiable financial benefit is one which could add further depth to the travel-time debate more widely.

Fourth, the issue of engagement and disengagement within the public space of the bus has been identified as an area in which further research is required. The empirical data has provided evidence that those passengers who are more comfortable engaging with the journey and the social environment of the bus have significantly better experiences and perceptions. Further investigation is required however to explore this in greater depth, and there is an opportunity for multi-disciplinary research between product designers, human-centred design, and mobilities research to promote innovative thinking in the bus manufacturing industry. Specifically, it is suggested that qualitative research into this issue with respects to the existing research identified in earlier discussion is a fertile trajectory to follow. In particular, it will be desirable to explore the social setting through mixed focus groups in which bus passengers from different social demographics are brought together and asked to discuss the social environment. This will allow for a partial re-creation of the social dynamic within the vehicle, and provide additional insight which would not be generated through individual interviews or quantitative methods. In addition to mixed focus groups, it would also be desirable to incorporate observation of the bus environment into the methodology, which could generate rich descriptive data about the social environment to contextualise the analysis.
Fifth, it has been noted throughout the discussion and in the section above that it is not possible to know whether specific findings are the result of a cohort effect (i.e. are specific to the particular temporal and social setting of the sample), or whether these are generational, and thus a constant feature of travel-time experiences. It was not possible within the remit of this thesis to generate panel data to assess this issue, and it is recognised in this thesis that such panel data could be of great use. The time restrictions of doctoral study prohibit the generation of any meaningful panel data, however it is suggested that if a travel-time use study could be created which combined survey and interview data with a cohort of older and younger bus passengers it would create a unique perspective on the changing technological practices and social norms which underpin journey experiences and perceptions of the bus.

The final opportunity is in exploring the point of technological change that is occurring more widely in society with regards to its relationship to travel-time on the bus. It is clear that mobile technologies and ICTs are being used in high numbers amongst younger passengers. This could represent a watershed moment in relation to the way in which activities can give meaning to travel-time, supported by the fact that these new technologies facilitate activities that were not possible only a few years ago – particularly with reference to virtual communication. Similarly to the discussion in the previous paragraph, this would require the use of panel data to track the changing relationship between technology and the travel experience, alongside an analysis of the historical relationship between technologies and travel, which this thesis and several of the existing studies discussed in it would provide. Considering the strong link between age and technology use on the bus, it would seem appropriate that the avenues of investigation be combines, and any panel data used to explore technologies on the bus and attitudes of younger and older passengers alongside one another.

This research has demonstrated that travel-time on the bus is not “dead” time, but prompts many different activities deployed across the age range. Clearly technology has transformed the opportunities to use time, but these do not necessarily improve the experience either for those using them or for their fellow passengers. This thesis
suggests both opportunities and challenges for bus operators in improving journey experiences and in bolstering and expanding patronage on local bus services.
8.0 References


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Bus Tales: Travel-time use, technologies, and journey experiences on the bus


Bus Tales: Travel-time use, technologies, and journey experiences on the bus


Bus Tales: Travel-time use, technologies, and journey experiences on the bus


9.0 Appendix

9.1 Appendix 1 – Bus user focus group moderator guide

Travel-time use and the journey experience –
Focus group moderator guide

[MATERIALS:]
Stickers for name badges
Coloured pens
2 flip charts (‘pre-loaded’: first with positive and negative column; then likert responses – one-to-a-page – in order you will use them; then scenario questions)
Cards (4 or 5 prewritten) plus plenty more blanks
A5 paper

1) Introduction, administration, and welcome (5 minutes)

‘Hello and welcome.’

‘My name is Billy Clayton, and this is Dr Tilly Line/Professor Glenn Lyons/Dr Juliet Jain, and we’re both members of the Centre for Transport and Society, our research centre based here in Q-block. If you’d like to fill in your name stickers please that’d be great, just so we all know who we’re addressing. Help yourself to refreshments at any point.’

‘Today I’ll be asking for your opinions and thoughts on the topic of the time you spend travelling, what you do whilst you are travelling, and how you experience your journeys. My research is focussed on the concept of ‘travel-time’. Basically, what this means is looking into the actual time that people spend travelling. Whilst we already know a lot about people’s travel-time in terms of how long it normally takes, etc… there is still a lot to be learned about what it is
people actually do with their time whilst they’re using the various types of transport. It’s important to not only understand how long journeys take, but also how people experience these journeys and how the many types of transport might be different or similar in this respect. This is where my research fits in.

I’ll be leading us through the discussion, making sure we stay roughly on topic, however it’s an open forum and so feel free to discuss your thoughts and opinions with other member of the group and not just myself. There are no right or wrong answers; we’re after your opinions.’

‘A couple of things before we begin; I’ll be recording our discussion to help me with my notes later on, however everything that we discuss will be anonymous. What you say might go forward as data in my report but once again this data will be anonymised. You are free to say as much or as little as you like today, but please be mindful that we are trying to get the whole group’s views and opinions: please respect the others in the group by talking one at a time. Oh, and of course you’ll be paid at the end of the session. Thank you.’

\[\text{2) Warm-up (15 minutes)}\]

‘What I’d like to do is go around the group and find out a little about how you get around – i.e. your travel habits. We’ll go around the table, and if you could please introduce yourself, mention how often and why you come in to UWE, and tell us a little about how you usually get about.’

‘I’ll start us off... my name’s Billy and I come in to the university most days of the week to work and study. Currently I cycle in to Uni as much as I can but I also use the bus (especially in winter). I do drive too but I sold my car a while ago so now rely largely on public transport for any big journeys.’

[Go around group and get responses.]
‘Ok, fantastic. Now I’d like to hear a little about the reasons you use the type of transport you normally do specifically to get in to uni. What would you say are the main reasons you choose to use this type?’

[Prompt – if travel time mentioned]: ‘Very interesting. [Insert name(s) here], you mentioned that one of the reasons you get the car/bus is because of the time you spend on it. That’s the main topic of our discussion here today, could you explain a little more about that reason please?’

‘That’s great, thank you [insert name(s) here]. I note that no others of you mentioned anything to do with the time you spend travelling as being a reason for choosing the type you use. I’m curious about this because it’s our main topic of study. The next exercise that we’ll move on to now will explore the time you spend travelling a little more.’

[Prompt – if travel time not mentioned]: ‘Ok, interesting. I note that none of you mentioned anything to do with the time you spend travelling as being a reason for choosing the type you use. I’m curious about this because it’s our main topic of study. The next exercise that we’ll move on to now will explore the time you spend travelling a little more.’

3) **Travel-time experience, carried objects, ICTs, and everyday activities. (40 minutes)**

‘Ok, I’d like to talk through a little bit about what makes a good or a bad journey for you in terms of the time you spend travelling in the car/on the bus.’

[Prepared flip-chart sheet with negative and positive column]

‘I’m going to write down on this flip-chart some of the good and bad descriptions of time that you might have. Where do you think we should start? Ok, we’ll start positively/negatively, in terms of the time you spend in the car/on the bus, what makes a good/bad journey for you?’
[Prompt – In the event no-one is emotively descriptive]: ‘How does [what they’ve described] make you feel?’

[Pick six – eight words.]

‘Ok, thank you, now we can move on to the positives, in terms of the time you spend in the car/on the bus, what makes a bad/good journey for you?’

[Prompt – In the event no-one is emotively descriptive]: ‘How does [what they’ve described] make you feel?’

[Pick six – eight words.]

‘Fantastic! Right, now what I’d like to move on to is a closer look at the things you might be doing or the objects you might be using when you have a good experience like you described above.’

[Get out set of pre-printed cards with a few items on them. Many more blank cards, hand around a few cards to each person.]

‘We’re going to talk for a minute about the everyday items that you carry around with you. There’s a few that I’ve already put in the middle there. If you’d like to spend a couple of minutes please and add your own into the mix. I’ve put a ‘nothing’ card in there to cover anyone who might like to travel light. I’m going to pop another one in myself actually [write out pen/pencil]. Try to think of things that people carry round with them to use in the day, they don’t have to be things you carry yourself.’

‘Great stuff. Right, now I’d like to talk a little about what you do on the bus. Please think about a regular journey that you make. One that you are familiar with. I’d like you to briefly talk through the experience of that journey. Can you try to describe to me how you think the journey might go, what you would do on the journey, how you would feel?’
[Go around group and get responses.]

[Prompt – if not particularly forthcoming]: ‘OK, I note that a few of you are having a little trouble recounting these elements of your journey. We’ll now bring in some props to assist you in recalling your journey.’

‘On your journey, which of the everyday items (or of course nothing) we have in front of us do you think you might use?’

[Put objects they mention into one group. Talk through reasons for objects they use.]

[Prompt]: ‘What do you do with these objects?’

‘How might it affect your journey if you were [not able to do discussed activity]? Would this affect your experience of the journey?’

‘Ok, great. Now I’d like you to use your imaginations a little, and imagine that you have to take a bus journey that you aren’t familiar with. For example, if you’re going away and know you have to get the bus for a part of – or the entire – journey.’

‘Can you think of any objects that you might add to the ones in the pile?’

[Write out cards for new objects.]

‘Why would you add these objects?’

[Prompt – if not covered already]: ‘What kind of experience do you think that doing the activities we’ve discussed on the bus might create?’
Ok, now I’d like to follow this up by talking specifically about mobiles, laptops, and the other technologies that are in this pile. Can you tell me a little about how you use technology on the bus?

[Prompt]: ‘What do you use [specific object] that for?’

[Prompt]: ‘Do you think you would do this otherwise, off the bus?’

[Prompt]: ‘Do any of you not use certain – or any – ICTs on the bus?’

[Prompt – if ‘yes’]: ‘Can you please tell me a little about why this is?’

[If time]

‘Do ICTs help you do things you otherwise couldn’t do on the bus?’ [Probe examples].

‘Ok, now I just want to wrap up this section with a final exercise’.

[Have two Likert opposites ready.]

‘Which of these statements do you think you’d most agree with?’

[Prompt]: ‘Why is this?’

[Repeat as required.]

‘Ok very interesting, thank you. Now we’ll move on to the next section. Feel free of course to grab yourselves a coffee or tea quickly.’

4) Socio spatial configuration & characteristics (20 minutes)

[Hand out 3 pieces of A5 paper to each person.]

‘Ok, in this section we’re going to be comparing some types of transport and asking you to describe them. We’ll be exploring the inside of the car, the bus,
and the train and looking at the different situations. I’ve got some sheets here with headings that describe different aspects of the inside of different vehicles. [Talk through sections]. Please write a few words on whatever comes to mind in this sense if you had to characterise, or give a short summary of travelling by this type of transport’.

[Bring examples together and group by mode. Go through the three modes and ask them about their responses.]

‘Are these from experience?’

[Probe – if ‘no’]: ‘What makes you think this?’

‘Does everyone agree with this characterisation? Can others of you identify with this view?’

[Probe – if ‘no’]: Why do you disagree?

[Repeat for each of the three modes.]

[Prompt – if they have not put down anything about other people in any of their characterisations]: ‘Ok, well interestingly none of you have mentioned other passengers in your descriptions. Do other passengers affect your experience of a journey?’

‘Thinking about your bus journeys, are there any activities that you could do on the bus but that you choose not to?’ [Probe examples.]

[If time, probe First/U-Link similarities/differences from general characterisations.]
5) Responsibility and value (10 minutes)

‘Ok, now this is the last section that we need to cover today, the end is in sight. I just need to ask you a few more questions on our last topic, to round off the group today.’

‘I’d like you to have a look at this situation’.

[Have situation on flip chart]

[Dave is on his regular bus ride home from work, sitting quietly in typical Bristol traffic on the bus, bored and a little bit agitated.]

‘Can anyone empathise with this situation?’

‘What do you think could make Dave’s experience better?’

[Prompt – if they do not mention anything Dave personally can do]: ‘Is there anything Dave himself is able to do to change this experience?’

‘How might [what they say] affect Dave’s experience?’

‘So, is Dave in any way responsible for how he feels on his bus journey?’

[Probe – if ‘yes’]: ‘In what way?’

[Probe – if ‘no’]: ‘Why not?’
[Lucy is on her regular drive home from work, sitting quietly in typical Bristol traffic in her car, bored and a little bit agitated.]

‘What do you think could make Lucy’s experience better?’

[Prompt – if they do not mention anything Lucy personally can do]: ‘Is there anything Lucy herself is able to do to change this experience?’
‘How might [what they say] affect Lucy’s experience?’

‘So, is Lucy in any way responsible for how she feels on her car journey?’

[Probe – if ‘yes’]: ‘In what way?’

[Probe – if ‘no’]: ‘Why not?’

‘Now I’d like you to imagine for a moment that you no longer have to use the bus to get around’.

‘Would you miss the time you spend on the bus in any way, not so much perhaps the service the bus provides, but rather specifically the time that you spend in it?’

[Prompt – if yes]: ‘In what ways do you think that you would miss this time in the car?’

[Prompt – if no]: ‘Why would you not miss the time you spend in the car?’

Likert 1 – Bus Users:

‘Time on the bus gives me time for things I otherwise wouldn’t have time for.’

‘The things I do on the bus would be done anyway, even if I didn’t get the bus.’

‘I don’t like the bus because it restricts what I can do with my time.’

‘I like the bus because it’s time when I can’t be doing anything.’
9.2 Appendix 2 – Car user focus group moderator guide

Travel-time use and the journey experience –
Focus group moderator guide

[Materials:]
Stickers for name badges
Coloured pens
2 flip charts (‘pre-loaded’: first with positive and negative column; then likert responses – one-to-a-page – in order you will use them; then the two scenarios, ‘Lucy’ and ‘Dave’)
Cards (4 or 5 pre-written) plus plenty more blanks
A5 paper

1) Introduction, administration, and welcome (5 minutes)

‘Hello and welcome.’

‘My name is Billy Clayton, and this is Dr Tilly Line/Professor Glenn Lyons/Dr Juliet Jain, and we’re both members of the Centre for Transport and Society, our research centre based here in Q-block. If you’d like to fill in your name stickers please that’d be great, just so we all know who we’re addressing. Help yourself to refreshments at any point.’

‘Today I’ll be asking for your opinions and thoughts on the topic of the time you spend travelling, what you do whilst you are travelling, and how you experience your journeys. My research is focussed on the concept of ‘travel-time’. Basically, what this means is looking into the actual time that people spend travelling. Whilst we already know a lot about people’s travel-time in terms of how long it normally takes, etc… there is still a lot to be learned about what it is people actually do with their time whilst they’re using the various types of transport. It’s important to not only understand how long journeys take, but also
how people experience these journeys and how the many types of transport might be different or similar in this respect. This is where my research fits in.

I’ll be leading us through the discussion, making sure we stay roughly on topic, however it’s an open forum and so feel free to discuss your thoughts and opinions with other member of the group and not just myself. There are no right or wrong answers; we’re after your opinions.’

‘A couple of things before we begin; I’ll be recording our discussion to help me with my notes later on, however everything that we discuss will be anonymous. What you say might go forward as data in my report but once again this data will be anonymised. You are free to say as much or as little as you like today, but please be mindful that we are trying to get the whole group’s views and opinions: please respect the others in the group by talking one at a time. Oh, and of course you’ll be paid at the end of the session. Thank you.’

2) **Warm-up (15 minutes)**

‘What I’d like to do is go around the group and find out a little about how you get around – i.e. your travel habits. We’ll go around the table, and if you could please introduce yourself, mention how often and why you come in to UWE, and tell us a little about how you usually get about.’

‘I’ll start us off... my name’s Billy and I come in to the university most days of the week to work and study. Currently I cycle in to Uni as much as I can but I also use the bus (especially in winter). I do drive too but I sold my car a while ago so now rely largely on public transport for any big journeys.’

[Go around group and get responses.]

‘Ok, fantastic. Now I’d like to hear a little about the reasons you use the type of transport you normally do *specifically* to *get in to uni*. What would you say are the main reasons you choose to use this type?’
[Prompt – if travel time mentioned]: ‘Very interesting. [Insert name(s) here], you mentioned that one of the reasons you get the car/bus is because of the time you spend on it. That’s the main topic of our discussion here today, could you explain a little more about that reason please?’

‘That’s great, thank you [insert name(s) here]. I note that no others of you mentioned anything to do with the time you spend travelling as being a reason for choosing the type you use. I’m curious about this because it’s our main topic of study. The next exercise that we’ll move on to now will explore the time you spend travelling a little more.’

[Prompt – if travel time not mentioned]: ‘Ok, interesting. I note that none of you mentioned anything to do with the time you spend travelling as being a reason for choosing the type you use. I’m curious about this because it’s our main topic of study. The next exercise that we’ll move on to now will explore the time you spend travelling a little more.’

3) Travel-time experience, carried objects, ICTs, and everyday activities. (40 minutes)

‘Ok, I’d like to talk through a little bit about what makes a good or a bad journey for you in terms of the time you spend travelling in the car/on the bus.’

[Prepared flip-chart sheet with negative and positive column]

‘I’m going to write down on this flip-chart some of the good and bad descriptions of time that you might have. Where do you think we should start? Ok, we’ll start positively/negatively, in terms of the time you spend in the car/on the bus, what makes a good/bad journey for you?’

[Prompt – In the event no-one is emotively descriptive]: ‘How does [what they’ve described] make you feel?’
[Pick six – eight words.]

‘Ok, thank you, now we can move on to the positives, in terms of the time you spend in the car/on the bus, what makes a bad/good journey for you?’

[Prompt – In the event no-one is emotively descriptive]: ‘How does [what they’ve described] make you feel?’

[Pick six – eight words.]

‘Fantastic! Right, now what I’d like to move on to is a closer look at the things you might be doing or the objects you might be using when you have a good experience like you described above.’

[Get out set of pre-printed cards with a few items on them. Many more blank cards, hand around a few cards to each person.]

‘We’re going to talk for a minute about the everyday items that you carry around with you. There’s a few that I’ve already put in the middle there. If you’d like to spend a couple of minutes please and add your own into the mix. I’ve put a ‘nothing’ card in there to cover anyone who might like to travel light. I’m going to pop another one in myself actually [write out pen/pencil]. Try to think of things that people carry round with them to use in the day, they don’t have to be things you carry yourself.’

‘OK. Part of our research is comparing what people do with their time on the different types of transport. What I’d like to do now is a bit of visualisation. I’m going to ask you to use your imaginations a little. I would like you all to pretend that you are bus users. I’m going to give you all the same role of a student that lives about half an hour’s drive away from uni, and that has a regular bus service within a reasonable distance of your front door’
[Prompt – if anyone originally listed poor availability of services as reason they use car]: ‘I understand that [insert name(s) here] doesn’t have the option to get the bus, but please imagine all of you that you are student that lives about half an hour’s drive away from uni, and who has a regular bus service within a reasonable distance of your front door’

‘I’d like you to briefly talk through the experience of that journey. Can you try to describe to me how you think the journey might go, what you would do on the journey, how you would feel?’

[Go around group and get responses.]

[Prompt – if people not really visualising]: ‘Ok, I note that a few of you are finding it a little tricky to imagine a bus journey. What we’ll do now is use some props to try and assist you imagining the journey.’

In your imaginary journeys, which of the everyday objects we have in front of us do you think you would use on a bus journey.

[Put objects they mention into one group. Talk through reasons for objects they’d use.]

[Prompt]: ‘What would you do with these objects?’

‘Can you think of any more objects you might need to add to this set now you have to get the bus?’

[Write out cards for new objects.]

‘Why would you add these objects?’

[Prompt – if not covered already]: ‘What kind of experience do you think that doing the activities we’ve discussed on the bus might create?’
‘Ok, now I’d like to follow this up by talking specifically about mobiles, laptops, and the other technologies that are in this pile. Can you tell me a little about how you might use technology on this imaginary bus ride?’

[Prompt]: ‘What might you use [specific object] for?’

[Prompt]: ‘Is there any of these items you wouldn’t be happy to use on the bus?’

[Prompt – if ‘yes’]: ‘Can you please tell me a little about why this is?’

‘Ok, now I’d like to return to you as car users. Do you use any of the objects in the technology pile in the car?’

[Prompt]: ‘What do you use [specific object] for?’

[Prompt]: ‘Do any of you not use certain – or any – ICTs in the car?’

[Prompt – if ‘yes’]: ‘Can you please tell me a little about why this is?’

‘Ok, very interesting, thank you. So is there anything that technology lets you do in the car that it doesn’t on the bus, or vice versa?’

[Probe examples].

‘Ok, now just want to wrap up this section with a final exercise.’

[Have two likert opposites ready.]

‘Which of these statements do you think you’d most agree with?’

[Prompt]: ‘Why is this?’

[Repeat as required.]
‘Ok very interesting, thank you. Now we’ll move on to the next section. Feel free of course to grab yourselves a coffee or tea quickly.’

4) Socio spatial configuration & characteristics (20 minutes)

[Hand out 3 pieces of A5 paper to each person.]

‘Ok, in this section we’re going to be comparing some types of transport and asking you to describe them. We’ll be exploring the inside of the car, the bus, and the train and looking at the different situations. I’ve got some sheets here with headings that describe different aspects of the inside of different vehicles. [Talk through sections]. Please write a few words on whatever comes to mind in this sense if you had to characterise, or give a short summary of travelling by this type of transport’.

[Bring examples together and group by mode. Go through the three modes and ask them about their responses.]

‘Are these from experience?’

[Probe – if ‘no’]: ‘What makes you think this?’

‘Does everyone agree with this characterisation? Can others of you identify with this view?’

[Probe – if ‘no’]: Why do you disagree?

[Repeat for each of the three modes.]
5) Responsibility and value (10 minutes)

‘Ok, now this is the last section that we need to cover today, the end is in sight. I just need to ask you a few more questions on our last topic, to round off the group today.’

‘I’d like you to have a look at this situation’.

[Have situation on flip chart]

[Lucy is on her regular drive home from work, sitting quietly in typical Bristol traffic in her car, bored and a little bit agitated.]

‘Can anyone empathise with this situation?’

‘What do you think could make Lucy’s experience better?’

[Prompt – if they do not mention anything Lucy personally can do]:
‘Is there anything Lucy herself is able to do to change this experience?’

‘How might [what they say] affect Lucy’s experience?’

‘So, is Lucy in any way responsible for how she feels on her car journey?’

[Probe – if ‘yes’]: ‘In what way?’

[Probe – if ‘no’]: ‘Why not?’

[Dave is on his regular bus ride home from work, sitting quietly in typical Bristol traffic on the bus, bored and a little bit agitated.]

‘What do you think could make Dave’s experience better?’

[Prompt – if they do not mention anything Dave personally can do]:
‘Is there anything Dave himself is able to do to change this experience?’
'How might [what they say] affect Dave’s experience?'

'So, is Dave in any way responsible for how he feels on his bus journey?'

[Probe – if ‘yes’]: ‘In what way?’

[Probe – if ‘no’]: ‘Why not?’

'Now I’d like you to imagine for a moment that you no longer have to use the car to get around'.

'Would you miss the time you spend driving in any way, not so much perhaps the convenience of having the car or the service it provides, but rather specifically the time that you spend in it?'

[Probe – if ‘yes’]: ‘In what ways do you think that you would miss this time in the car?’

[Prompt – if ‘no’]: 'Why would you not miss the time you spend in the car?'

Likert – Car Users:

'I like the time I spend in the car, and enjoy how I use my time when travelling in it.'

I don’t like the time I spend in the car, and do not enjoy how I use my time whilst travelling in it.'

'I don’t like the car because it restricts what I can do with my time.'

'I like the car because it’s time when I can’t be doing anything.'
9.3 Appendix 3 – Bus Tales questions

Bus Tales questions

**Question #0** – Tales from the bus: what is your most memorable ‘bus story’?

**Question #1** – How do you spend your time whilst on the bus?

**Question #2** – How do you use new technologies whilst you are on the bus?

**Question #3** – How do you feel about other people using new technology on the bus?

**Question #4** – Do you value the activities you do on the bus; does your bus time benefit you?

**Question #5** – How do you choose where to sit on the bus; do you have a favourite seat?

**Question #6** – What change (if any) would you make to the bus interior?

**Question #7** – How would you describe the bus interior (its layout, space, cleanliness etc…) in your own words?

**Question #8** – Has the recent period of cold weather changed the experience of your usual bus journey; and if so, how?

**Question #9** – Do you prefer company on the bus?

**Question #10** – Is the bus a sociable place?
9.4 Appendix 4 – New ethical considerations when conducting online discussions

As has been noted, the novel nature of Phase 1 meant that this study faced unique ethical challenges specific to its location on an SNS. The Economic and Social Research Council (ESRC) publishes periodic guidelines on the issue of ethics in social research, and it is these guidelines which the ethical considerations of this thesis are based (see: ESRC, 2010). Travel-time use on the bus and the journey experiences of passengers can be reasonably argued as a sufficiently benign topic to allay unwarranted ethical concerns about the actual content of the discussions and the questions being asked of participants. The overarching intent of the research is positive, and transport is a well trodden and common subject of discussion in normal social discourse. Therefore the idiosyncratic ethical concerns addressed in this thesis relate in the largest degree to the practicalities of the study method itself.

The ESRC note that internet research is an area in which the established ethical guidelines followed by researchers are less concrete, and the relative infancy of this area of social research means that ethical “good practice” in this area is still under development (ESRC, 2010, p. 32). Facebook is an intensely public “place”, and there are challenges raised by this in relation to the established ethical considerations which are now considered as standard in most research in which human beings are both the subject and the participants. At the same time however, Facebook is a highly public place in which individuals spend a proportion of their free time by choice. Therefore there is the suggestion that by a person’s very membership of the site, they are comfortable with the levels of disclosure that the site encourages, and are very aware of the site’s public nature. Facebook necessarily has its own well-developed security and privacy features which everyone – including the Bus Tales discussion group – must abide by. Therefore where there are new and important ethical considerations raised by this study, there is a counter-argument that the use of SNSs as a platform for social research is advisable over the creation of a purpose-built data collection site – which would not benefit from the privacy and security features offered by SNSs. Despite this, several areas of ethical concern remain.
Specific areas of ethical “best practice” which Bus Tales challenged were: methods for gaining informed consent; methods of control over selection of the sample; methods for protecting vulnerable individuals; and issues of privacy relating to the online nature of the data (see: ESRC, 2010). These issues are highly important, and it is imperative that the researcher understands and engages fully with their responsibility to ensure to the best of their ability that no person comes to undue harm or distress as a result of participation in a study. This section therefore discusses the ethical safeguards that were adopted throughout Phase 1 to ensure that risk to participants was minimised. This section moves through the four key areas of concern described above, which the ethical safeguards developed for this study have been designed to specifically attend to.

It should be noted that at the time of joining the group – alongside the welcome message – all participants were sent a message containing the group’s ethical code of conduct (see: appendix 9.5, p. 354). As explained below, the rules in this code of conduct are designed for proactive use, to assist in minimising the risk of harm to the participants, the researcher, and the institution.

**Informed consent**

The Bus Tales discussion group challenged the methods of gaining informed consent which are required of academic researchers. The process of gaining informed consent most normally involves informing the participant in some detail of what they are signing up to be a part of, informing them of what happens to their opinions and contributions, ensuring their confidentiality, allowing them to leave at any time, and allowing them to have their contributions removed from the database and destroyed at any point. All of these aspects are agreed to by the participant providing some form of written confirmation in the form of a signature or other mark (e.g. a checkbox or similar) (ESRC, 2010).

In the context of Bus Tales, gaining written consent from each participant was not a workable option, even in an electronic format. The ESRC (2010) note that at times the
established routes through which consent is gained may not be available to the researcher, and that alternate options must be sought. Therefore an alternative option was taken through a dedicated consent information process whereby the participant was informed that by contributing to the group they were consenting to their opinions being used as data in the research: “consent by submission”. This was done by making the statement of consent a prominent aspect of the study information pages, the information messages sent to new participants, and at regular intervals in discussion.

The logical rationale behind this approach is that to be able to take part productively in the discussion an individual must know what the discussion is about. In order to find out what the discussion is about, a potential participant must read at least some information relating to the topic of the group and the research. Therefore, provided each piece of information about the research contains a prominent message outlining the process of consent by submission, it is sufficiently likely that the person understands what they are contributing to that it can be deemed informed consent when they do make a submission. One of the stipulations that was messaged to participants in the group code of conduct (see: appendix 9.5, p. 354) is that all discussion should be kept relevant to the specific research questions or the broader topic, and therefore in the unlikely event that a person joined the group, ignored the welcome message and the group information page, and started posting unrelated information, they would be swiftly identified as in breach of the code of conduct and removed and blocked from the group.

This enforcement of the code of conduct demonstrates how in a unique situation such as that described here, having strict group rules which align with ethical concerns – and which the participants themselves break if they do not give their consent or do not understand the ethical code – means that the researcher is able to effectively moderate the study and provide protection to both the participants and themselves.
Methods for control over the selection of the sample

The specific challenge to established ethical procedures in this context was in ensuring that participants in the study were of the age of 18 or above. Facebook itself has an age-limit of 13 (Facebook, 2011), and therefore there is the potential that any person over this age could join the group. Wejnert and Heckathorn (2008) write that in other cases of RDS, participants who are recruited through their peers are required to provide basic personal information to ensure their eligibility. In the context of an SNS study this is problematic due to sites’ own privacy measures which stipulate that people do not have to disclose personal information, and also the practicalities of gaining such information even if it were not contrary to sites’ own privacy rules.

Therefore a similar approach to that described above was taken in this respect. The age-stipulation has been written into all of the group information materials and also into the code of conduct for members (see: appendix 9.5, p. 354). Therefore in order to be able to take part in discussion it is very unlikely that a person has not read the information, and therefore understands the age-stipulation. Additionally, it is possible to view a member’s profile once they have joined the group and assess from either explicit or implicit information that they provide as to whether they are 18 or over. Therefore this two-pronged approach means that the risk of members being under the age of 18 is acceptably low as to be safe. The most likely route through which this process could be subverted is through a minor constructing a fake profile, over which the researcher has no control. However the researcher’s constant moderation of discussions means that any information posted suggesting this to be the case would be grounds for a participant’s removal from the group. It is further argued that the issue of a minor signing up to an adult’s discussion group under the pretence of being an adult is of reduced concern when that situation is considered in reverse, and therefore the issue of age is potentially more significant in studies using the same method but which probe different topic – i.e. research on SNSs specifically targeting the opinions of minors as opposed to adults.
Methods for protecting vulnerable individuals

A common ethical concern in research is the minimisation of risk to individuals who might be particularly vulnerable in one of several senses. This is normally taken to apply to adults who are unable to consent for themselves either due to mental illness or for other reasons, young offenders, prisoners, or people with particular dependent relationships on the investigator.

The ethical concern in the context of this study is that there is no way for the researcher to identify whether an individual is vulnerable or not, as the only information that is received is that which can be gleaned from the participants’ profile. The stance taken in response to this unique concern however is that this study is one which has the benefit of being able to be particularly inclusive. The research group operates within the wider rules of the Facebook site, and therefore any participant is at no greater risk within the group than they would be on the site more generally. As stated before, the code of conduct applies to all discussions and therefore if a person breaks this code by posting inappropriate or personal information which is likely to place them at risk this information will be removed and the person blocked from the group.

This thesis argues throughout that the bus is a public service, and therefore holds the position that everyone is entitled to their views and opinions on it. Therefore if a person who might be categorised as vulnerable wishes to join the discussion and give their opinion on the bus they are very welcome to do so, as long as their submissions do not identify them to others in the group as vulnerable in such a way as to put them at risk of harm, and furthermore that their comments are relevant like those of other participants must be. This consideration may need to be given greater prominence in studies with different topics or intentions however.
Issues of privacy

The final unique ethical concern is that of privacy. It has been noted that Facebook is an intensely public space, and the information that participants provide about their use of time on the bus and their journey experiences is available in the public domain for an extended period of time. Therefore to protect privacy participants are required by the code of conduct to not include in their posts any information that might relate to their personal lives – addresses, phone numbers, email, etc... The site was regularly and consistently moderated and so any evidence of this could be quickly identified and the posts removed. In actuality however, this was not an issue and no such incidents occurred. Participants were further informed that they were able at any time to leave the group and to have their opinions removed from the site as is standard ethical practice. Conducting research using an SNS as a platform can be argued to in fact hold some benefits in terms of privacy concerns. Firstly is that people are on the SNS through choice, and will understand that the intention of the site, and be comfortable with the levels of personal disclosure that it encourages. Secondly, people’s competence and social proficiency in using these sites means that they are likely to be more attuned to issues of privacy than someone less-used to the nature of SNSs, and therefore are arguably in a better position to understand the risks and engage in the discussion in a safe and fully informed way.

Additionally, the final safeguard of the decommissioning of the site means that Bus Tales is now no longer online, and participant’s posts were therefore only in the public domain for the duration of the study – to which they had agreed. At the close of the site, all of the data was transferred offline, stored securely, and the site deleted from Facebook.

Whilst this study posed unique ethical challenges that required additional safeguards and processes to be developed, it is argued that participants on Bus Tales received good protection which allowed them to provide data without incident.
9.5 Appendix 5 – Bus Tales discussion group code of conduct

Facebook Project:

Bus Tales – Exploring travel-time use on the bus

Code of conduct for membership of the Facebook group ‘Bus Tales’ and any subsequent participation in on-line discussions

In line with standard rules of participation in on-line discussion forums, it is assumed that you have read, understood and will abide by the following:

About your posts:
Keep your contributions civil and relevant. We're committed to providing an atmosphere in which friendly and mature dialogue takes place.

The following are not acceptable:

Messages which are unlawful, harassing, defamatory, abusive, threatening, harmful, racially offensive, homophobic, or are highly objectionable.

Impersonating someone else or attempting to mislead other members of the forum about your identity.

Please:
Do not join this group if you are aged under 18 (EIGHTEEN). For ethical reasons this group is only open to individuals aged 18 (EIGHTEEN) and over. By making any contribution to the group, an individual confirms that they are aged 18 (EIGHTEEN) or over.

Stay on Topic - Try to keep posts on the subject of the thread.

Although you might choose to use your real name and a thumbnail portrait on the website, do not reveal any other personal information about yourself (for example: your telephone number, home address etc).

Respect the confidentiality of other participants in the project – they may not wish their postings to be repeated outside the project group.

Keep any media (i.e. photos, videos) that you might post to the group within reasonable dimensions.

You agree that the webmaster, administrator and moderators of this forum have the right to remove, edit, move or close any topic/content at any time should they see fit.

About the law:
You may not post any defamatory or illegal material of any nature on the project website. This includes text, graphics, video, programs or audio. Posting a message with the intention of committing an illegal act is strictly prohibited.

You agree to only post materials to which you have the copyright or other permission to distribute electronically. You may not violate, plagiarise, or infringe on the rights of third parties including copyright, trademark, trade secret, privacy, personal, publicity, or proprietary rights.

Privacy:
Please take a moment to check the terms of use, including the privacy policy, of Facebook.


Based on UWE students’ union discussion forum rules
9.6 Appendix 6 – Questionnaire survey form

– Please see overleaf –